**CONTRACTOR SELECTION PROCESS AND SERVICE DELIVERY IN WATER AND SANITATION DEVELOPMENT FACILITY IN NORTHERN UGANDA**

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# DECLARATION

I, **AMOS ALUMA JABO**, hereby declare that, this dissertation is my own original work and it has not been presented to any other institution for an academic award to the best of my knowledge and that this research is a result of my own work, except where other authors work was referred to, acknowledgements have been duly made.

Sign……………………………………….. Date……………………………………….

# APPROVAL

We, the undersigned, certify that the dissertation titled ***“*Contractor selection process and service delivery in water and sanitation development facility in northern Uganda*”*** was conducted under our supervision and has been submitted for examination with our approval in partial fulfillment of the requirements for the award of Master’s degree in Public Procurement of Uganda Management Institute.

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Sign…………………………………………. Date…………………………………………..

**Mr. Christopher Mayanja**

Sign…………………………………………. Date…………………………………………..

# DEDICATION

I dedicate this research to my wife Agnes, children; Paula and Calvin, my mother Juliana Avako (RIP) and father, Jabo Gaspero Ogali and siblings. My parents laid the foundation of my education upon which I am continuing to build on and the encouragement from my family and my siblings have been my strength. I thank them for believing in me.

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# ACRONYMS

AG’s Report Auditor General’s Report

B.C Before Christ

CIPS Chartered Institute of Procurement and supply

CSP Contractor Selection Process

CVI Content Validity Index

DV Dependent Variable

DWD Directorate of Water Development

EU European Union

GDP Gross Domestic Product

GPA Agreement on Government Procurement

IV Independent Variable

JWESSP Joint Water and Environment Sector support Programme

MWE Ministry of Water and Environment

NWSC National Water Sewerage Corporation

OECD Organisation for Economic Co-operation and Development

PART principal Agent Relationship Theory

PPDA Public Procurement and Disposal of Public Assets Act

SD Service Delivery

SOW Scope of works

SPSS Statistical package for social scientists

TOR Terms of Reference

UNDO United Nations Development Programme

VFM Value for money

WB World Bank

WSDF-North Water and Sanitation Development Facility North

WTO World Trade Organization

# ABSTRACT

This study investigated the relationship between contractor selection process and service delivery in water and sanitation development facility in northern Uganda. The study objectives were to: establish the relationship between solicitation documentation and service delivery, bid evaluation and service delivery, due diligence and service delivery in WSDF-North. The study adopted cross sectional survey design using qualitative and quantitative approaches. The findings revealed significant relationship between contractor selection process and service delivery in water and sanitation development facility in northern Uganda. There was a significant positive correlation between solicitation documentation and service delivery in WSDF-North (r = 0.592). There was a significant positive correlation between bid evaluation and service delivery in WSDF-North (r = 0.799). There was a significant positive correlation between due diligence and service delivery in WSDF-North (r = 0.912). A regression analysis shows that service delivery in WSDF-North is dependent on solicitation documentation by 63.7%, service delivery in WSDF-North is dependent on bid evaluation by 83.2% and service delivery in WSDF-North is dependent on due diligence by 35%. The study concluded that contractor selection process greatly influences service delivery in Water and Sanitation Development Facility in Northern Uganda hence improvement in solicitation documentation, bid evaluation and due diligence enhances service delivery. The study recommends strengthening, structural adjustments of the procurement system to enhance efficiency, productivity, and improved service delivery and accountability and in WSDF-North.

# CHAPTER ONE

# INTRODUCTION

# 1.1 Introduction

Contractor selection process (CSP) has become one of the elementary roles of purchasing organizations since it virtually affects entity’s competitiveness and service delivery. The procuring and disposal entity’s today carry out solicitation documentation, bid evaluation and due diligence of contractors, a very paramount element in contractors’ selection and the organization success. This study examined the relationship between Contractor Selection Process (CSP) and Service Delivery (SD) in Water and Sanitation Development Facility North (WSDF-North) in Uganda. In this study, Contractor Selection Process was considered as independent variable and Service Delivery dependent variable. The chapter contains background of the study, statement of the problem, purpose of the study, specific research objectives, research questions and hypothesis, conceptual framework, scope, significance and justification of the study as well operational definitions of key terms in the study.

# 1.2 Background

The study background is organized in four perspectives of historical, theoretical, conceptual and contextual backgrounds. Amin (2005), concurs that the background to the study can be organized into historical, theoretical, conceptual and contextual perspectives.

# 1.2.1 Historical Background

According to Thai (2001); the knowledge of the history of procurement as a function and a profession has emerged way back as evidenced in 2800 and 2400 B.C which was engraved on a red clay tablet. Lowasikou (2016); asserted that “the main purchasing objective in contractor selection was to obtain the lowest possible price by creating strong competition between contractors and negotiating with them.”

According Basheka (2012); “the history of procurement extends several thousand years into the past; a fact that provides a useful theoretical foundation for the subject matter of contemporary public procurement systems and service delivery. These two oldest celebrated empirical evidences justify that procurement could be thought to be an oldest function, practice, process and an important socio-economic activity for SD since man started living in communal and community life”.

Bakari (2017)., noted that despite East African government’s deliberate initiatives in ensuring public services delivery systems are managed by the idea of value for money (VFM); there are misconceptions amongst politicians, bureaucrats, technocrats, and the general public on the strategic contribution of contractor selection process to public services delivery systems. Jeff (2008)., opined that contractor selection process and maintenance of a truly professional procurement system do not fit well within a political and often legislative-type process.

In Uganda the Development Assistant Committee (2005) procurement accounts for high proportion of total expenditure estimated at 70% compared with global average of 12-20%. Therefore, in return the government expects significant benefits from contracting with contractors offering high service level. Since late 1990’s reforms have taken place in public procurement in Uganda with emphasis on transparency and competitive contractor selection for better public service outcomes. Today, over 70% of public expenditure worth $1.9billion contracts is subject to competitive selection process of contractors for public infrastructure.

There are many entities, in Uganda that follows prescribed procedures of contractor selection process as exhibited by PPDA Procurement Audit Report (2016/17) of 116 Entities with different levels of scores namely; 1 Entity (0.9%) was ranked highly satisfactory, 88 Entities (75.8%) satisfactory, 25 Entities (21.6%) were ranked unsatisfactory and 2 Entities (1.7%) were highly unsatisfactory. The overall compliance level for the procurement process for all the assessed 116 Entities was 76.9 % which creates need for the researcher to establish why not 100%. This has consequences in government’s quest for service delivery, given the agitations raised by the communities. The PPDA Audit Report (March, 2018), indicated the anomalies. It is against this background that the research on contractor selection process and service delivery in WSDF-North in Uganda’s greater Northern region was conducted.

# 1.2.2 Theoretical Background

The study was underpinned byMulti Attribute model authored by Howard (1966), and co-authored by Keeney & Raiffa (1978), for decision making analysis. In construction, it is essential to consider contractor selection process to achieve service delivery variables such as time, price/cost, quality efficiency and reliability, (Zavadskas & Kaklauskas, 1996; Zavadskas & Vilutiene, 2006).

Multi-attribute technique is a decision-making model which involves designing the best alternative that have the most attractive overall attributes, and that involves the selection of the optimal alternative (Hwang, 1987).

Holt, Olomolaiyab & Harriet (1993), “proposed a system with quantifiable indices which comprises a three- stage process requiring the calculation of what is called a P1 scale index to investigate the more general areas surrounding potential contractors. A P2 scale index is calculated for the second stage to further assess the contractor in specific factors and finally a P3 scale index is calculated to compare the bid prices of the invited contractors”. Holt *et al*. (1993), “combined the P2 and P3 scores into a simple index by assigning a 60% weighting for the P3 score (representing the bid price) and a 40% weighting to the P2 score (representing information collected).” Herbsman & Ellis (1992); “proposed a system which is based on the idea that the selection process of the contractor will be based on more parameters than just bid price (cost) namely; time, quality and secondary parameters such as safety, durability, security, Maintenance, where incorporated and used”.

# 1.2.3 Conceptual Background

This sub-section discusses the key concepts of contractor selection process which includes solicitation documentation, bid evaluation, due diligence and service delivery.

As Mahmut (2006);- asserted “ contractor selection is an important procurement activity for all entities.” Stakeholder expectations have changed to “demand cheaper, high quality products, timely delivery and excellent after-sale services,” (Mahmut, 2006). It starts when a need for a new contractor is realized, determination of criteria, pre-qualification, final contractor selection and monitoring of the contractor selected. “Pre-selection is one of the methods for assessing capabilities of contractors applying for the contract” (Ibadov, 2015). “Selection of the right contractor influences timely completion of construction works.”

Weber & Current (1991);- argues that “contractor selection is the process by which organizations identify, evaluate and agree with contractors.” Spiller & Ungerman (2007):- corroborates that “contractor selection process are stages in which buyers identify, evaluate and contract with contractors.”

In this study, contractor selection refers to process of preparation and issuance of solicitation documentation document, evaluation of bids received and conducting due diligence before or after award of contract in order to minimize risks in service delivery.

Handfield (2011); - argues that “solicitation documentation is a process of seeking information, proposals and quotations from potential contractors/ bidders.” As Patel (2016);- defines “solicitation documentation is a document used to request potential vendors to offer a quote, bid, or proposal to acquire works, and services”. Solicitation documentation can be verbal, quality and consistency is enhanced if the process is formalized as a written or electronic document. This study defines solicitation documentation as documents used to request potential bidders to offer a quotation or proposal to provide goods, services and works. It further, includes;- “ tender notice preparation, publication, addendums and clarifications to the tender documents, approval of tender document by the tender committee, issue of tenders, opening of bids and tender evaluations, contract award information and tender cancellations.”

**Bid Evaluation** refers to “examination and assessment of bids and is done by evaluation committee”, PPDA Act (003). The bids are examined against criteria stated in the solicitation document. “The best bids are compared against legal and technical capacity, experience, qualification, quality, time and lastly price/cost,” (PPDA Regulations, 2014). As Babich & Pettijohn (2004);- argues that ‘’bid evaluation is conducted by nominated evaluation team in accordance with the relevant regulations, rules and procedures, using the evaluation criteria and method pre-determined in the solicitation document in order to conduct a fair and unbiased evaluation’’.

**Due diligence** is defined as “the physical verification of the documents and actual performance of the bidder to ascertain authenticity.” Due diligence is usually done after identification of best evaluated bidder or negotiation (CIPS guide, 2005). Here the study looked at aspects of risk mitigation and due diligence process

As Akpan-Obong (2010);- asserts “Service delivery entails a well-functioning public sector, which is thought to be responsive to the citizenry and to be reasonably eﬃcient in the delivery of public services.” Besides Helmsing (1995); corroborates that “service delivery is a deliberate obligatory decision by the elected or appointed officials to deliver goods and services to the recipients. For the purposes of this study, Service delivery is a component of business that defines the interaction between providers and clients where the provider offers a service*,* whether that be information or a task, and the client either finds value or loses value as a result. Good service delivery provides clients with an increase in value”.

**1.2.4 Contextual Background**

According to Uganda LG Handbook (2013)., “service delivery is a relationship between policy makers, service providers, and consumers of those services, and encompasses both services and their supporting systems”. However, with the project of WSDF-North there is a great dilemma as witnessed through the challenges such as inadequate financing which affect coverage of service delivery to achieve the targets, especially the targets under the Strategic Sector Investment Plan (2018-2030), NDPII and Presidential Directives (example one water source per village) are unlikely to be met; the delay in execution works by the contractors affected SD and laxity in monitoring projects by field engineers (AG Report 2015/16); in hygiene and sanitation, 8% of the rural population was practicing open defecation, which affects quality of water and sanitation (MWE Performance Report, 2018). The World Bank Report (2017), stressed that “Uganda is considered within the region as being well endowed with water resources”. However, the Auditor General Report 2014/2015), indicated that the country is experiencing water management challenges relating to seasonal and spatial variability of water resources, increasing water demand and deteriorating water quality, delayed completion of water projects. The AG Report (2015/2016), noted poor sanitation facilities and habits by high population and urbanization in small towns are causing serious depletion and degradation problems of the available water resources in the rural and peri-urban areas. The Performance Review Reports (2017 and 2018), indicated variations in key performance indicators existed in FY 2014/2015 at 23.4%, FY 2015/2016 at 22.7% ,FY 2016/17 at 21.7% and lastly FY 2017/2018 at 21.8% which are below required service delivery targets as indicated in the table 1 below:

Table 1 1: Performance Review Reports

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Target** | **Actual** | **Variance** |
| 2014/2015 | 100% | 76.6% | 23.4% |
| 2015/2016 | 100% | 77.3% | 22.7% |
| 2016/2017 | 100% | 78.3% | 21.7% |
| 2017/2018 | 100% | 78.2% | 21.8% |

**Source**: ***MWE Performance Review Report, (2017 and 2018).***

The aspects of CSP such as, solicitation documentation, bid evaluation and due diligence were considered critical to achieve water and sanitation facilities in right quality, right time and in cost effective way for socio-economic transformation of communities as indicated by AG Report (2015).

# 1.3 Problem Statement

Alhazmi & McCaffer (2000)., noted that “contractor selection process (CSP) is extremely critical for successful completion of a construction project”. As Baily et al. (2008) cities, “effective contractor selection decisions will only be met when all relevant factors have been considered and weighted against the risks and opportunities which apply.” The CSP involves much more than simply picking a contractor for each requirement in isolation, Nerija & Banaitis (2010). The selection of contractor (SC) is often conducted by WSDF-North during tendering to award the contract to most potential bidder that will deliver required service level. This is conducted on competitive basis by comparing bids of contractors in order to select most qualified, competent and reliable contractor.

However, whereas WSDF-North procures the contractors in line with PPDA Act (2003) as amended (2014), the AG’s report (2015) on service delivery indicated a number of challenges such as poor-quality metallic suction pipes installed by contractors which affected quality of water and lack of approved designs led to poor and substandard construction works. The AG’s Report (2016), indicated that construction works for piped water supply system in Northern Uganda was delayed due to abandonment of site by the contractor. On the same note, instances of contaminated water due to open defecation and low quantities of water existed. These scenarios make citizens and donor’s cast doubt on CSP and Service delivery in WSDF-North. Therefore, it is not clear to what extend solicitation documentation, bid evaluation and due diligence contribute to service delivery and it was due to this reason that the researcher investigated the relationship between solicitation documentation, bids evaluation and due diligence [contractor selection] and relation to quality, cost and timely delivery of the right quantities of requirements that the communities need [service delivery] in WSDF-North.

# 1.4 Purpose of the Study

The purpose of the study was to investigate relationship between Contractor Selection Process (CSP) and Service Delivery (SD) in Water and Sanitation Development Facility in Northern Uganda.

# 1.5 Objectives of the study

1. To establish the relationship between solicitation documentation and service delivery in WSDF-North
2. To find out the relationship between bid evaluation and service delivery in WSDF-North
3. To establish the relationship between due diligence and service delivery in WSDF-North.

# 1.6 The Research Questions

This study shall seek to answer the following questions;

1. What is the relationship between solicitation documentation and service delivery in WSDF-North?
2. What is the relationship between bid evaluation and service delivery in WSDF-North?
3. What is the relationship between due diligence and service delivery in WSDF-North?

# 1.7 Hypotheses

The study seeks to test the following Hypotheses;

1. There is a significant relationship between solicitation documentation and service delivery in WSDF-North.
2. There is a significant relationship between bid evaluation and service delivery in WSDF-North.
3. There is a significant relationship between due diligence interventions and service delivery in WSDF-North.

# 1.8 The Conceptual Framework

As Mugenda & Mugenda, (2003);- noted “conceptual framework refers to conceptualization of the relationship between variables in the study and it is shown diagrammatically.” The conceptual framework below illustrates the relationship between contractor selection process and service delivery.

 **Independent Variables (IV) Dependent Variable (DV)**

**Contractors Selection Process Service Delivery**

Solicitation documentation

* Specifications
* Procurement Methods
* Quality
* Time
* Cost
* Quantity

Bid evaluation

* Evaluation criteria
* Evaluation committee

Due diligence

* Risk mitigation
* Due diligence process

Figure 1.1: Conceptual Framework showing relationship between the variables

**Source:** *Adopted and modified from “Tang” Mcaw-Hill, (1991) and Novack & Simco,S.W Journal of Business Logistics Vol.12, Issue1, (1991) and modified by the researcher.*

From the conceptual frame work above, contractor selection process is conceived “as the independent variable and service delivery is the dependent variable.” Contractor selection process is measured in the dimensions of solicitation documentation, bid evaluation and due diligence. The indicators of solicitation documentation are specifications and procurement methods, the indicators of bid evaluation are evaluation criteria and evaluation committee, the indicators of due diligence are risk mitigation and due diligence process. Service delivery is measured in terms of quality, time, cost and quantity. The multi attribute model for decision making analysis considers contractor selection process as a determinant to achieve service delivery variables such as time, cost, quality and quantity.

# 1.9 Significance of the study

First, the study may guide the management by identifying challenges facing contractor selection process in procuring and disposal entities and provide necessary action in addressing them. Findings of the study may help evaluation committee, contracts committee, and contracts managers gain insight on negative consequences of poor contractor selection process.

Scholars and academicians may use the recommendations of study as a guide in similar research studies.

Policy makers may use the recommendations of the study to amend public procurement Act, guidelines, and regulations and develop policies to mitigate challenges in contractor selection process in the region.

**1.10 Justification of the study**

Omer,(2006), noted that “an essential step in every procurement involves determining if potential contractor is qualified to serve as a government contractor. The contractor can be expected to complete the contract work on time and in a satisfactory manner, and doing business with it will promote various social and economic goals and satisfies other special standards of eligibility imposed by statutes and regulations”. Contractor selection process is vital and it cannot be revised after award of contract unless complaints occur. It is therefore imperative that procuring and disposal entities devote adequate time and resources in contractor selection phase. Unless, this is done thoroughly well, the entities risk in achieving desired service delivery, a factor detrimental to the community or the beneficiaries of the service.

Very few studies have outwardly concentrated on a case study approaches; hence in this study a triangulation approach will be deemed necessary. Furthermore, the reviewed articles indicated that previous studies examined the effects, causes and influences of contractor selection hence the need to investigate the relationship between contractor’s selection process and delivery of service in WSDF –Northern Uganda.

# 1.11 Scope of the study

The study was limited within a well specified coverage in terms of geography, content and time.

# 1.11.1 Geographical scope

WSDF-North operates in sub regions of Lango (9 districts), Acholi (7 districts) and West Nile (9 districts). The study was conducted at WSDF -North headquarters located in Lira Municipality, Ministry of Water and Environment headquarters in Luzira and in districts of Oyam and Dokolo. These districts were chosen because they implemented many water and sanitation projects in the last five years and Ministry of Water and Environment headquarters was chosen because they handle procurements whose value is above two billion Ugandan shillings.

# 1.11.2 Time scope

The study covered the period from 2013-2018 and this was the time when WSDF-North carried out audits following community agitation and noted that the quality of works and services provided by the contractors was lacking thus the challenges.

**1.11.3 Content scope**

This study was limited in its coverage to assessing the relationship between contractor’s selection process and service delivery. In this study, the contractor selection Process was to establish the relationship between solicitation documentation, bid evaluation and due diligence and quantity, quality, timeliness and cost of service delivery to the beneficiary communities within WSDF-North Project areas.

# 1.12 Operational Definitions

**Contractor selection:** Refers to selection of a contractor during tendering process for construction/ works project to achieve required quality, workmanship, in time and at desired cost by contractors (Turskis *et al.,* 2008).

**Service delivery: According to** Mark (2007), service delivery refers to level of responsiveness, service culture, engagement, service quality, customer experience, cost effectiveness of public goods and works such as water, irrigation, health and education among others provided to the intended community at a particular time period.

**Solicitation documentation**: Refers to the process of seeking information, proposals, and quotations from potential interested contractors/ bidders by means of a written document, verbal or electronic (Lynch, 2016).

**Solicitation Document:**This is a document that contains all the requirements, instructions, terms and conditions of the contract, legal clauses and special terms to achieve the desired or required item. The obligations of procuring entity and that of contractor are clearly spelled, (UN Procurement guidelines, 2002; PPDA Act, 2003).

**Bid Evaluation:** This refers to examination and assessment of bids and is done by evaluation committee. The bids are examined against criteria stated in the solicitation documentation document. The best bids are compared against legal and technical capacity, experience, qualification, quality, time and lastly price/cost, (PPDA Regulations, 2014).

**Due Diligence:** This is physical verification of the documents and actual performance of the bidder to ascertain authenticity. Due diligence is usually done after identification of best evaluated bidder or negotiation (CIPS guide, 2005). Here the study looked at aspects of risk mitigation and due diligence process

**Risk**: is a probability of an event [within the entire procurement activity process ranging from the solicitation documentation, bids evaluation, at due diligence and including contract implementation where quantities, quality, cost and timely deliveries are compromised, thus need to be risk averse in the process of contractor selection till service delivery] having an adverse effect on a state agency, (CIPS guide, 2005).

**Quality:** This is fitness for purpose, while satisfying the local communities (beneficiaries) expectations and it may be understood differently by different people, (Chowdbury, 2014).

**CHAPTER TWO**

**LITERATURE REVIEW**

**2.1 Introduction**

This chapter reviews literatures on contractor selection process and service delivery. According to Ragin, (2011);- literature review is “ the systematic method of establishing construing an existing body of recorded work on contractor selection process and service delivery.” This chapter contains theoretical review, review of related literature and literature synthesis. The major sources of literatures used are text books, journals, dissertations and government reports.

**2.2 Theoretical review**

The study was guided by the Multi Attribute Techniques/ Model of Ellis & Herbsman, (1992), which elaborates contractor selection process to achieve service delivery variables of time, price/cost, quality efficiency and reliability. The model helps to determine the winning bidder and client’s needs and project objectives. As Hatush & Skitmore, (1997);- stressed that “the model is ﬂexible to changes, allocation of risks and the ability of a contractor to cope with the levels of complexity that are involved”. The shortfall of the model is that financially, it may not produce accurate information about “the contractor's performance, capabilities and capacity and does not account for imprecision and uncertainty associated with data submitted by the contractor.”

According to Tzeng & Huang, (2013) and citing Zedan, (1996);- “the common weakness of the Multi attribute techniques/model are; varying types of data are presented for prequalification; quantitative, qualitative but artificially quantified; The model requires a deterministic rating from the decision makers which is contrary to basic principle of the objectivity, it does not account for uncertainty associated with data submitted by the contractor; it may not be an ideal for ranking the contractors and might not produce a shortlist of the tenderers it may not produce accurate information about the contractor's performance, capabilities and capacity and in main occasions the contracting officer makes a decision based on subjective judgment; it is possible to easily skew the results when a particular result is desired and decision maker is simply seeking to justify his action”.

**2.3 Empirical Review**

Mema & Smith, (1990);- found out that “one of the reasons for poor service delivery is due to the inappropriateness of the awarded contractors. The methodologies and procedures for solicitation documentation, bid evaluation and due diligence have remained relatively unchanged since the 1940’s especially in public sector and dominated by the principle of acceptance of the lowest price.”

**2.3.1 Solicitation documentation and Service Delivery**

Lynch (2016), affirmed that “solicitation documentation is the process of seeking information, proposals, and quotations from potential interested contractors/ bidders. The solicitation documentation can be issued by means of verbal. However, the common method of ensuring quality and consistency is enhanced by formalized a written or electronic document”. The PPDA Act 2003 and the Regulations there under refers to a solicitation documentation or bidding document as a document issued by an entity to potential contractors (providers) defining its procurement objectives, the qualification and experience of potential providers, the scope of works/services and providing a template against which bidders can prepare bids/proposals. In addition, PPDA Act (2003) and Regulations therein, stress that “solicitation documentation comprised of **i**ntroduction, general information, description of the works and services to be procured, (statement of requirements) the minimum qualifications of a vendor, minimum standards of a bid/proposal, required elements of a bid/proposal, contractual terms and conditions, Submittal requirements and criteria by which RFP will be evaluated”.

As Patel, (2016);- on the other hand stated “solicitation documentation is a document used to request potential vendors to offer a quote, bid, or proposal to acquire goods, works and services”. Patel, (2016), stressed that “selection of solicitation documentation considers best practice and standard for each procurement method selected, ensures consistency from one procurement event to another, avoids repetition and omissions and Streamlines the process”. At WSDF North the process of solicitation of documents is done by the Procurement and Disposal Unit [PDU] in accordance to PPDA Act, (2003).

UN Procurement Practitioners handbook, (2017)**.,** requires “standardized solicitation documents should be customized to provide clarity and completeness of requirements, delivery terms, evaluation and selection criteria, Special terms and conditions, and contract type.” “The process of tendering should be based on principles of competition, fairness and accessibility, transparency and openness and probity. The process of obtaining tenders should also aim at best value and not necessarily the lowest price” (Lyson & Farrington, 2006).

Lyson & Farrington (2006)., noted that “the solicitation document should inform potential bidders of quality expected of the works. This implies that works executed under contract are of satisfactory quality. The following are appropriate aspects of the quality; fitness for all purposes for which goods of the kind in question are supplied, appearance and finish, freedom from minor defects, safety and durability”.

The Procurement and Disposal Unit (PDU) has the responsibility of preparation and management of solicitation documentation process, PPDA Regulation2014 (19). PDU upon receipt of an approved procurement requisition, and after reviewing the technical specifications for completeness is in a position to begin preparing the solicitation documentation documents from a template for standard tender document Lynch, (2012).

**2.3.2 Specification**

The PPDA Act (2003,10) defines “specification to refer to description of an object of procurement or disposal in accordance with national and international standards adopted and approved by the Authority, after consultations with the National Bureau of Standards or other appropriate trade association and professions, the use of which shall be mandatory in all bidding documents.” “ The heart of the competitive source selection process are the specifications, a description in the solicitation documentation that identifies for vendors the characteristics of the commodity, construction or service that the public entity wants to buy” (Holden, 2008). The process usually starts with a requisition from the end user which informs procurement and disposal unit that something needs to be bought, (Baily *et al*, 2008).

According to Annual UN Procurement Report (2011), “any technical specifications or standards used must be made available to all tenderers in advance and no changes will be permitted during the course of the procedure that could favour specific tenderers”. Jalal (2014), noted that “the quality required, material workmanship, its properties, types and strength of construction material is known as specifications”. The information cannot be described from construction drawing. Jalal (ibid), asserts that “the same manner concrete ingredients, their ratio and special ties can only be shown through specifications”. The cost of work depends much on scope of works. The specifications should be clear and precise. “The purpose of specification is to highlight the necessary information which cannot be obtained from drawing to show; the strength of construction material, ratio of concrete or mortar ingredients, type of materials, wood, glass, color of construction material, cost of material, procedure of construction works. The language of specifications should be clear and no ambiguity left. Specifications are the important part of contract, has legal value and one can consult the court in case of dispute”.

Martemyanova, (2012)., stressed that “the organizations should employ specialists to draw up technical specifications for contracts”. This is to ensure that the goods and works delivered are ones required. The researcher considers specifications designs and bills of quantities for work projects should be complete without any omission and negligence in specifying the technical details of the scope of works will result in losses and law suits which are uncalled for.

**2.3.3 Methods of Solicitation documentation**

Government of Uganda procurement procedures provides for the entities to use the procurement methods specified in the Act for all procurement requirements. This is provided for by the PPDA Regulation (2014. 2 -3); which stress for choices of procurement methods that shall be determined by; estimated value of the requirement; the circumstances relating to the requirement and type of procurement. PPDA Regulation (5); provides for circumstances relating to the requirement to be procured may be used as additional criteria in determining the choice of procurement method.

**2.3.4 Pre-qualification of Contractors**

The UN procurement handbook (2012) defines “Pre-qualification as a method whereby contractors (providers) of particular goods, services or works are assessed against pre-determined qualification criteria, and only those contractors who comply with the criteria are invited to tender”. Nget *et al.* (1999) asserts that “the contractor pre-qualiﬁcation process involves the establishment of a standard for measuring and assessing the capabilities of potential contractors”.

“Prequaliﬁcation could be used in early stages of the bidding process in order to select a group of potential contractors. The prequaliﬁcation process could be used for various projects, goods, or services”. Enshassi & Nayrab (2010), stated that “bidding decisions affects business success and output is based on decision inputs at solicitation level.” Elyamany (2010), stressed that “large contractors with more experience are competing against small contractors and those small contractors could bid lower prices”. The failure of contractors highly increases final cost and rises schedule time of the project.

**2.3.5 Open Competitive Bidding**

Holt *et al.* (1995)., noted that most construction entities favour competitive bidding to direct bidding”. Merna & Smith (1990)., stated that “through competitive tendering, contracts are typically awarded to the contractors with the lowest price. In the public sector, this usually happens for reasons of accountability”. Lingard  *etal*. (1998), opined that “competitive tendering tends to increase contracting uncertainty due to errors or the deliberate submission of an unrealistically low bid.” Adelis & Bajari (2006)., argued “ that competitive bidding stifles valuable coordination between the procurer and potential contractors before the specifications are finalized.” A contractor has no incentives to offer to the procurer advice on how to improve the specifications to avoid certain pitfalls.” In addition, Deming (1994), further argued “ that competitive bidding can force a contractor to accept a very slim profit margin.”

One of the ways to achieve an effective competition, is that the bidders participating in public procurement have to submit a declaration of bidder‘s honesty by indicating whether their participation in a particular procurement is independent. Also, they have to declare their independence as competitors. This declaration helps to avoid possible bid rigging at the earliest stage of a public procurement and the entity is able to see the number of bidders, participating and genuinely competing in a particular public procurement, (Lithuania, 2012).

According to CIPS, (2005)., “ the principles of a free market economy and open competition and transparency” and according to ,(PPDA Act, 2003)., are a basis for cost effective procurement, quality and timeliness of procured services leading to improved flexibility of service delivery. The buyer’s knowledge and experience in prices of bills of quantities or works in contracts is of a great interest. Cave (2003), asserts that the healthy competition is the life blood of commerce as it ensures efficiency, fairness, innovation and drive down prices/cost (Lithuania, 2012).

**2.3.6 Request for Quotations/Proposals**

According to PPDA Regulations 2014 (15), “the quotations method shall be by selection of bidders using a shortlist. A PDE shall obtain at least three quotations, a procurement process under the quotation method shall not require the opening of quotations to be held in public and the PDU shall make a submission to the contracts committee in respect of procurement under quotations”.

In a competitive bid environment, the low bidder may be awarded the contract unless the bidder is found to be nonresponsive. The procuring entity shall specify in solicitation documentation document application of reservation schemes to promote local content in public procurement in Uganda, PPDA Act 2003 (97). This condition helps to protect local contractors from unfair competition against international contractors/bidders.

**2.4.0 Bid Evaluation and Service Delivery**

The PPDA Act (2003) stresses that “Evaluation of bids is an independent assessment of compliance with; the statement of requirements, ability to perform the proposed contract. It further states that bid evaluation is examination, comparison and recommendation of contract award”.

Evaluation is the process by which “Best Evaluated Bidder” is selected for award of contact from among all the bids received, PPDA Act amended 2014 (71) and PPDA Act 2003, section 69). David Burt *et al.*  (2010); stressed that “the type of evaluation required to determine contractor capability varies with the nature, criticality, complexity and value of procurement, and evaluation various with sourcing team’s knowledge of the firms being considered”. Marc (2000); argued that “additional evaluation steps are necessary for strategic procurements and strategic contractors”. The steps for complex, high valued and critical project can include; surveys which help to provide sufficient knowledge about the contractor, technical and financial analysis of the contractor help to minimize project failures by the main contractors.

**2.4.1 Evaluation Criteria**

The bid evaluation criteria is used to identify which bid offers is most economically advantageous tender or proposal and criteria must be specified in the tender document for buying decision (Vagari *etal.* 2017). The tender evaluation criteria requirement is defined before issuing the bid document to interested and eligible bidders by the procuring and disposal entity. The PPDA Regulations (2003) note that “the criteria should be approved by the contracts committee before issue.” The evaluation criteria shall not be drafted in a way which restricts competition, except where it is necessary to meet the objectives of the procurement or preference or reservation scheme is applied, PPDA Regulation, 2014(7). Tender evaluation criteria should reflect the risk and the value of the contract, (Vagari *et al,* and 2017). Evaluation criteria should impede cost/price, delivery schedule for the works, installation, transportation, work in progress or operational cost of bidder and overall whole life cost. According to the PPDA Regulation, 2014, Section 7(3), “the evaluation criteria shall assess; compliance of the bid with the statement of requirements; ability of the bidder to perform the proposed contract; and the ability of the bid to meet the objectives of the procurement”.

The common criteria for procurement activities include; quality requirements, functionality ability, continued technical support, ability to complete works in time, compliance with legal requirements and acceptance of proposed terms and conditions of the contract (Vagari *et al*, 2017).

According to Herbsman & Ellis (1992), “the major criteria are cost, time, and quality as measured by the bid amount, time of execution, and quality of previous work respectively. Therefore, the winning bid should be fully responsive and complaint”. Gilbreath (1992), posits that most entities in Uganda prepare estimated budget internally to benchmark quotations received during bid evaluation and lowest quotation within the budget range is recommended for award of contract. According to Watt *et al.* (2010), the importance of contractor evaluation and contractor selection remains immensely vital to clients for reaching project goals. The selection of the best suitable contractor in a public procurement process plays a crucial role in the achievement of project success and the objectives. Bochenek (2014); concluded that poor workmanship, non-completion of a project within a stipulated duration, or a decision for a contractor walking off-site, may all be as a result of the incorrect evaluation of tender and contract award. In addition, Bochenek (2014); proved in his research that in many countries’ contractor selection is not strictly linked with price, the multi criteria decision making allows for choosing the most economically advantageous tender.

**2.4.2 Evaluation Committee**

PPDA Regulations (2003) provide that “Evaluation Committee shall have the technical skills and experience relevant for the procurement requirement. An evaluation committee shall have among its member representing the user department; and a member of PDU”. As PPDA Section 37(5)., stated” in an event that PDE lack required skills and experience to evaluate due to conflict of interest or due to inadequate capacity, evaluation committee may be drawn outside the PDE.” “In order to maintain independence of functions and powers, a member of contracts committee shall not be a member of evaluation committee. A member of an evaluation committee shall declare that he or she has read the Code of Ethical Conduct in Business and does not have a conflict of interest in the procurement or disposal requirement by signing Form 13 in the Schedule to these Regulations**.** The evaluation committee is not a standing committee with a set of composition but is appointed from tender to tender”**.** The number of “committees shall depend on the value and complexity of the procurement requirement but shall in all cases be a minimum of three (3) members.”

“The qualifications of members shall be of an appropriate level of seniority and experience depending on the value and complexity of the procurement transaction Act 37(4)”. Regulations 169(5) provides similarly that “members with relevant type of skills and experience shall be required determined by the nature of procurement requirement but may include; -procurement and contracting skills; financial management skills; end-user representative; technical skills; legal expertise and industry development expertise”.

**2.4.3 Challenges in Bid Evaluation**

In Procurement News (2006), Basheka; cited that most challenge faced by the evaluation committee is corruption which happens at bid evaluation and award stage of the contractor selection process. Consequently, PPDA workshop (2007), Atuhirwe (2005); noted that the law allows the evaluation committee chairperson to exchange information during evaluation especially clarifications. The researcher beliefs this is a weak area which can breed lack of confidentiality. Basheka, (2006); writes further, “issues of conflict of interest and favouritism by the committee members is in many cases identified as the single most important problem. Since the law allows public officers to own businesses, there are many cases where contracts have been awarded in favour of firms associated with senior government officials contrary to PPDA Act,2003(78)”. In view of this, the researcher believes it is possible for the evaluation members to receive instructions from senior government officials or politicians on how the tender award recommendations should be made.

**2.5 Due Diligence Interventions and Service Delivery**

CIPS (2012)., provides that “Supply chain diligence, the purpose of due diligence is to test and verify the understanding of the contract or the deal to be entered into. The testing activities may include verification of; financial information, legal documents, staff information, deliverables, previous contracts, assets, properties, human rights”.

According to Designing Wiki (2016), the financial failure of a contractor or key [supplier](https://www.designingbuildings.co.uk/wiki/Supplier) can be catastrophic to a project. Perera & Schwab (2003)., argued that “the need and importance of due diligence are also imposed by some of the current trends, such as the need for access to (international) capital and the global shift towards better corporate governance following the recent accounting and corporate scandals in the US and Europe. Having appropriate due diligence measures in place helps to satisfy stakeholders and existing and potential investors”. According to Harvey & Lusch, 1995; Perry &Herd (2004), noted this “applies to insufficient planning resulting in management strife, political interference, employee dissatisfaction and bad financial results. This higher-level due diligence is often referred to as 'improved due diligence. It usually involves a very detailed value assessment, which takes place before signing a memo of understanding and includes both management as well as operations side of risks”.

According to Alexander (2016**).,  “**due diligence in procurement is basically mitigating, managing risks in your supply chain. It is the process of independently verifying a supplier’s capability to deliver fully against their contract. It is generally done at the stage of final evaluation/negotiation”.

According to the PPDA Act (2003(59)), notes that “a procuring and disposing entity may at any time during a procurement and disposal process carry out a due diligence test on a bidder and shall not be confined to the pre- or post-qualification stage”. Section 59 (2)., further provides for “ contracts committee to verify/check a bidder in exercising an obligation of due care in a procurement and disposal process to determine risks associated with non-performance of the bidder.” The PPDA Act, 2003(60)., provides for suspension of a provider upon breach of the Act or breach of code of ethics in procurement process.”

According to OECD Integrity Principles, (2009)., “procurement officials should be protected from undue influence from political interference and internal pressure. Further, the entities should provide prolong contact over an extended period of time between government officials and contractors to minimize conflict of interest in contractor selection process.”

**2.5.1 Process of Due Diligence**

While contractors are major players in construction industry, selection of compliant and responsive contractor can make or break any construction project. It is therefore, critically important to select a responsive contractors that can perform works that are cost effective and comply with specified requirements, (Shobhendu, 2017).

The following are the basic process of due diligence;

**Qualification of Contractor:** Shobhendu (2017)., noted that “entities in any industry have a supplier database and before the bid phase, procurement personnel (a buyer) should check the entity‘s approved supplier list.” If the supplier is not found in the database, first step will be to start supplier qualification process based on entity’s procedure. The selected qualification criteria will determine the responsiveness of the provider in terms of personnel, equipment and level of experience if service delivery has to be attained.

**Financial Statements:** Dahl (2004)., affirmed that “the firm’s financial statements provides critical information about the financial health of the business. However, the financial statements of most privately held firms do not meet these criteria”. Shobhendu (ibid)., asserts that “financial due diligence process must be carried out to ascertain the financial capacity of the provider to manage to accomplish the assignment.” If not well ascertained, this may result in projects taking long to be achieved let alone failures in service delivery thus negatively impacting on project sustainability.

**Asset due diligence:** Dahl (2004)., stressed that “ reports detailed the schedule of fixed assets and their physical locations and ownership.” This provides security for accomplishments of the assignment. If not well assessed then the Entity may contract a non-responsive bidder which will be a recipe for service delivery failure from on-set of the assignment.

**Past performance:** According to Fraser& Goldman *et al.* (2007)., “supplier’s past working history with the entity and its clients is an important aspect of due diligence. Checking supplier‘s past history brings enormous value in selecting the right responsive contractor. This process may involve but not limited to reference checks and site visits to said works which shall provide the contracting Entity confidence in the kinds of works the provider is capable of making thus an assurance for effective service delivery.

**Technical capabilities**: Assessment of supplier‘s technical capabilities is critical as it provides the Entity with an assurance of the capabilities of its technical staff and their ability to perform. Fraser & Goldman *eta*l (2007)., noted that “ performing technical assessment requires that the Engineering team are closely scrutinized for skills, qualification and past experience.” This ensures responsive bidders are selected for effective service delivery that provides quality, cost and timely accomplishments of assignments.

**Management and Resources; before** award, the procuring entity may need to determine the strength of administration team of bidder and resource capacity. These form a basis for compliance and responsiveness. Melles, (1996)., observed that “evaluating the firm’s employees and resources during due diligence can be a delicate matter”. Due diligence team should assess and verify whether ethical criteria have been met such as anti-slavery, code of conduct agreement, health and safety standards, environmental considerations, (Martin, 2018). These provide confidence to the buying entity of the capabilities of the Contractor, thus assured service delivery

**Potential Legal Liabilities;** Kessenides, (2004)., noted that “One of the most important tasks of the due diligence analyst is to uncover any potential legal liabilities confronting the firm. While the analyst can readily find extant lawsuits in the public record, discovering potential lawsuits will require more investigation”. Similarly, Bennett & Bowles (1994), noted that “ there is need to analyse whether current or former employees have been exposed to unhealthy and unsafely conditions.”

**Environmental due diligence**; “Due diligence related to environmental regulation is very important because if the contractor violates any major rule, local authorities can exercise their right to penalize the contractor and including shutting down its operations”. These are national requirements for responsiveness is sustainability of any project is to be attained WSDF inclusive.

**Taxes due diligence**; “Due diligence in regard to tax liability includes a review of all taxes obligations of the Bidders to ensure compliance. Documentation of tax compliance and potential issues typically includes verification and review of tax returns including income tax, withholding, and sales tax” Once a responsive bidder is selected then it provides a recipe for effective service delivery.

**2.6 Summary of Literature Review**

The literature review confirmed that different scholars had conducted several studies to establish the relationship between contractor selection process and service delivery. These studies fell short of explaining what happened in government settings in developing counties like Uganda; particularly in entities like WSDF- North with unique mandate requirements. This created a literature gap that justified the need for this study, in WSDF-North Most of these studies were based on developed countries context with vibrant private and public sectors yet the proposed study was in WSD-Northern Uganda. The studies were qualitative and do not guide the researcher on the relationship between the study variables. The scholars did not specifically focused on the variables as laid down in this study. This therefore, creates knowledge gap. It is imperative to investigate the two variables of contractor selection process and service delivery in WSD-North. Considering the above, the study focused on contractor selection process and service delivery in water and sanitation construction projects.

**CHAPTER THREE**

**METHODOLOGY**

**3.1 Introduction**

This chapter presents the methodology that was used in the study and it includes the following sub headings; introduction, research design, the study population, sample size and selection, sampling techniques and procedure, data collection methods, data collection instruments, data quality control both validity and reliability, procedure of data collection, data analysis and measurement of variables.

**3.2 Research Design**

The researcher used cross sectional survey design to describe the relationship between contractor selection process and service delivery. The study also used both qualitative and quantitative so that data analysis results from quantitative analysis can be corroborated and confirmed by qualitative analysis. The data was obtained through interviews, document analysis, and questionnaires were treated in a cross-sectional manner. Amin, (2005)., argues that “cross sectional survey design is the procedure of gathering information from a large number of people by collecting information from a few, analyzed and presented and the problem to be encountered and also involved assessing subjects at a single time.”

**3.3 Study Population**

The study population was 170 respondents which included top Management (5), Branch managers (4), Finance and Administration (9), Engineering (15), Procurement and Disposal Unit (5), Contracts Committee (5), Evaluation Committee ad hoc (15), User Departments (20), staffs from 2 districts (20); district staff, procurement officers, and contracts committee members, Politicians (10), Water user committees (40), and contractors (20). The choice to include these categories of respondents was based on their ample knowledge and contribution to contractor selection processes, politicians due to their influence and power in ensuring service delivery, water user committees are beneficiaries of the services, procurement officers and contracts committee members ensure compliance of contractor selection process and pre-qualified providers based on their knowledge in doing business with WSDF. These populations were to be important respondents given their direct involvement in procurement process aspects. The study was carried out in WSDF-North, MWE and two representative beneficiary districts namely Oyam and Dokolo.

**3.4 Sample Size and Selection**

The total sample size of 161 respondents were studied and determined basing on statistical tables of Krejcie & Morgan, (1970) Table as cited by Amin (2005). Krejcie & Morgan, (1970); posits that “where a total population is 170, a sample of 80 and above is sufficient”. According to Salant & Dilman, (1994); “the Sample selection depends on the population size, its homogeneity, the sample media and its cost of use and the degree of precision required” as illustrated in table below.

**Table 3.1: The Sample Size and Selection**

|  |  |  |  |
| --- | --- | --- | --- |
| **Population Category** | **target Population** | **Sample size** | **Sampling Technique** |
| Top Management | 5 | 05 | Purposive |
| Branch Managers | 4 | 04 | Purposive |
| Finance and Administration  | 9 | 9 | Purposive |
| Engineering  | 15 | 14 | Simple random |
| Procurement & Disposal Unit  | 5 | 5 | Purposive |
| Inventory Management/Stores  | 2 | 2 | Purposive |
| Contracts Committee | 5 | 5 | Purposive |
| Evaluation Committee | 15 | 14 | Simple random |
| User Departments | 20 | 19 | Simple random |
| District staffs | 20 | 19 | Simple random |
| Politicians | 10 | 10 | Purposive |
| Water User Committees | 40 | 36 | Simple random  |
| Contractors/Providers | 20 | 19 | Simple random  |
| **Total** | **170** | **161** |  |

**Source:** MWE**,** WSDF-North, and beneficiary Districts data (2018), guided by Krejcie & Morgan (1970) table.

**3.5 Sampling techniques and Procedure**

The researcher used both simple and purposive sampling techniques as presented in the sub-sections below.

**3.5.1 Purposive Sampling**

According to Max-well (1997); “purposive sampling as a type of sampling in which “particular settings, persons or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices”. Purposive sampling was used on specific groups of top management in MWE, branch managers in WSDF-North, Key staffs of finance and administration, procurement and disposal unit, contracts committee and local politicians in beneficiary districts.

**3.5.2 Simple Random Sampling**

According to Amin (2005); “simple random sampling gives every member an equal chance of being recruited into the sample. A sample frame was constructed and then members randomly sampled”. Simple random sampling was used to ensure an unbiased representation of a group under study, namely engineering staff, adhoc evaluation committee, user department staff, district staff, water user committees and service providers.

**3.6 Data Collection Methods**

The study deployed survey, interview guide and documentary review methods as presented in the sub-sections below.

**3.6.1 Survey method**

Kothari (2004); defines “a survey as a written set of questions with closely defined alternatives which allows respondents to select the answers they feel is appropriate to the question”. According to Mugenda *et al*. (1999); self-administered questionnaires allow respondents to answer questions without bias of the interviewer; respondent can be reached easily and conveniently. The questionnaire consisted of closed ended questions which allowed collection of data from 116 respondents quickly and cheaply. Mugenda *et al.* (2013); argues that “this method is used since it is reliable and dependable for medium and large samples; it also gives respondents adequate time, free from interviewer bias and also cheap”. It helped the researcher to gain first-hand information and extra experience over a short period of time (Kothari, 2004).

**3.6.2 Interview method**

Interviews are useful for qualitative research in understanding opinions, attitudes, experiences, processes, behaviors or predictions of the subject matter of interest (Rowley, 2012). According to Kothari (2004); “interviews describe the life events and experiences of respondents with respect to analysis of the significance of the portrayed phenomena”. Groves *etal,* (2009); argues that “interviews are basically the correct technique to use when exploring sensitive topics to create conducive environment for respondents to take part”. Semi structured interviews were used to provide reliable, comparable qualitative data and allows participants to express their viewpoints (Turner, 2010). Semi structured interviews allowed the researcher to introduce additional questions to a fixed set of questions to explore the phenomenon and are free from obstructions which makes it possible to gather relevant data about contractor selection process and service delivery, (Drew, 2014). The researcher conducted face-to-face, semi structured interviews with the selected respondents.

**3.6.3 Documentary review**

Secondary data was obtained from materials with information regarding reports, work plan, policies, guidelines, performance review reports, journals, evaluation reports, newsletters, charts, audit reports on contractor selection process was used. According to Creswell (2009); “secondary data is considerably cheaper and faster than doing original studies. It is very flexible and the best to use where a network of data archives in which survey data files are collected and distributed is readily available”. The researcher used this method to generate more information about contractor selection process and service deliver, (Sekaran, 2003).

**3.7 Data Collection instruments**

The study used both primary and secondary sources of obtain data from respondent in the field. The study data collection instruments included; questionnaires, interview guides and document review guide.

**3.7.1 Self-administered Questionnaire**

The researcher used closed-ended self-administered questionnaire. According to Sekaran (2003), “a questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents”. According to Kothari (2004), “the closed-ended questionnaire is considered the most convenient way of collecting data from respondents because it is easy to administer and obtain data within a short time from a large number of respondents, eliminate interviewer bias, and allows respondents to express their views freely with less pressure, helps the researcher to standardize responses, makes it easy to present data by way of categorizing and tabulating. The questionnaire consisted of only closed ended questions which covered demographic information and respondents’ views and concerns about contractor selection process and service delivery. The close ended questionnaire was adopted because the response options for a closed-ended question are exhaustive and mutually exclusive”.

**3.7.2 Interview Guide**

Semi structured interview guide which contains both closed and open-ended questions was used for managers to stimulate detailed discussion contractor selection process and service delivery (Kothari, 2004; Amin, 2005). This method allows the researcher to deliberate on meanings of questions in order to remove ambiguity while providing an opportunity to correct any misunderstood questions by the respondents.

The researcher probed for more information, elucidation and captured facial expression of the interviewees, investigate issues in more details, captured perceptions and feeling about contractor selection process and service delivery and why they hold certain opinions (Amin, 2005). The unstructured interviews were used to bring out some preliminary issues to the surface so that variables that need further in-depth investigation can be identified, (Ragin, 2011).

**3.7.3 Documentary Review checklist**

Secondary data was obtained through documents review process during the study. Documents under contractor selection process were reviewed and these included; performance reports procurement audit and journals among others these helped the researcher to develop the research problem and provide internal view of the relationship between contractor selection and service delivery in WSDF-North.

**3.8 Data Quality Control Measures**

To ensure data control the validity and reliability was measured. According to Amin (2005) validity refers to appropriateness of the instrument while reliability is consistency in measuring whatever it is intended to measure. Therefore, for the purpose of authenticity of results, ensuring validity and reliability of the instruments of the item in the instrument is very crucial.

**3.8.1 Validity of the instrument**

According to Earl-Babbie, (2013)., “validity refers to the truthfulness of findings or the extent to which the instrument is relevant in measuring what it is supposed to measure”. While Bailey & Kenneth (2014)., stated “Validity also refers to the ability to produce findings that are in agreement with the theoretical or conceptual values”. Validity involves the ability to confirm the credibility and trustworthiness of the research as presented in the study, (Yin, 2014). “The validity of the instrument quantitatively was established using the Content Validity Index (CVI) which involved expert scoring of the relevance of the questions in the instrument in relation to the study variables”.

**Table 3.2: The “Content Validity results for the instruments****”**

|  |
| --- |
| **Content validity Index Result of Questionnaires** |
| *Variables* | *Cronbach test results* | *Number of items* |
| Solicitation documentation | 0.768 | 8 |
| Bid evaluation | 0.755 | 8 |
| Due diligence | 0.796 | 8 |
| Service delivery | 0.862 | 8 |

 ***Source: Primary Data (2019)***

In this study, all the items on each variable were above 0.7 which indicated that all the items were valid.

**3.8.2 Reliability of the instrument**

According to Sekaran, (2003)., “reliability relates the extent to which a research instrument yields consistent results across the various items when it is administered again at a different point in time”. Amin (2005)., argues that “test-retest reliability can be used to measure the extent to which the instrument can produce consistent scores when the same group of individuals is repeatedly measured under same conditions”. A pre-test pilot study was undertaken on 15 respondents and the data entered in SPSS from which results were used to modify the items in the instrument. The test results were subjected to the Cronbach alpha co-efficient test using SPSS.

**Cronbach Reliability Coefficient test results for the Instruments**

**Table 3.3: Cronbach Reliability Coefficient test**

|  |
| --- |
| Cronbach Reliability Coefficient Results test for Questionnaires |
| *Variables* | *Cronbach test results* | *Number of items* |
| Solicitation documentation | 0.725 | 8 |
| Bid evaluation | 0.865 | 8 |
| Due diligence | 0.676 | 8 |
| Service delivery | 0.912 | 8 |

***Source: Primary Data (2019)***

In this study, all the items on each variable were above 0.7 which indicated that all the items were reliable. According to Amin (2005). “Overall scale of reliability of the present situation and the desirable situation was tested by Cronbach's Alpha coefficient test, which was above the acceptable level of 0.70.”

**3.9 Data Collection Procedure**

The researcher before proceeding to the field for data collection obtained a letter of introduction from Uganda management Institute. Then the researcher proceeded to collect both quantitative and qualitative data from respondents at WSDF-North, MWE and beneficiary districts of Oyam and Dokolo. The researcher made interviewed top managers, branch managers, contracts committee, evaluation committee ad hoc, politicians, user departments, finance and administration and administered questionnaires to engineers, procurement and disposal unit, contracts committee, evaluation committee ad hoc, user departments, staffs from districts; district staff, procurement officers, and contracts committee members, water user committees, and contractors.

**3.10 Data Analysis**

According to Patton (1987); “Analysis is the process of bringing order to the data, organizing what is there into patterns, categories and basic descriptive units”. The data obtained from the self-administered questionnaire was “analyzed using the computer based programme of statistical package for social science (SPSS) and findings were grouped according to major themes.” After which frequency tallies were made and converted in percentages to illustrate any central tendencies and dispersions, as illustrated in Best & Kahn, (1986). Data results were presented in tabular forms, percentages and frequencies.

**3.10.1 Qualitative Data Analysis**

According to Sarantakos (2005)., “the researcher organized statements and responses to generate full conclusions and interpretation on the study objectives”. A coding scheme was devised inform of frequency, direction, intensity and space to reduce themes into major themes. Checking was done to minimize errors of double selection.

**3.10.2 Quantitative Data Analysis**

As Kothari (2004)., asserts “ quantitative data was analysed using Statistical Package for Social Sciences (SPSS).” The process of data analysis involved double checking for inconsistent entries, editing for completeness, accuracy and eliminating errors. The researcher used the cleaned data to generate descriptive and inferential statistics. “The descriptive statistics used included frequency tables, mean, and standard deviation while the inferential statistics included correlations and regression analysis.”

**3.11 Measurement of Variables**

In this study, the measurement of variables was conducted using the works of Sekaran, (2004)., “ three scales were used namely; nominal, ordinal and interval.” Under this study, the researcher had two variables, one contractor selection process being an independent variable and service delivery the dependent variable. According to Mugenda *et al*. (1999)., “Nominal scale is used in the background of the questionnaire handling simple variables such as sex, age, gender and period of service” at WSDF-North”. Amin (2005) on the other hand noted that “the likert scale is used to collect opinion data to measure respondents contribution and responses to the questionnaire was arranged in a five point interval scale of Strongly agree (5), Agree (4), Neutral (3), Disagree (2) and Strongly Disagree (1) in that order of measurement”.

**3.12 Ethical Consideration**

This sub-section discusses the ethical issues involved in the study.

The ethical considerations refer to moral norms, values and principles considered in carrying out certain social activity. In this case carrying out a research process in order to show integrity with the research community. Resnik, (2015)., stressed that “researchers should observe ethical considerations in order to promote the motive of research.” While Hammersley & Traianou, (2012)., noted that “there were various ethical considerations commonly undertaken in research studies.”

First the researcher obtained authorisation from Uganda Management (UMI). An application was made attaching the Institute’s authorisation that was delivered to WSDF Management seeking to carry out an academic study at the Entity. Once verified, clearance was given as an approval to carry out the study. Secondly, “the researcher then made appointments with respective respondents. For purposes of guarding against privacy, all the participants were informed about the aim and nature of the study as academic. At interviews or questionnaire distribution, the researcher always sought informed consent from each respondent before taking part in the study. The participants were also assured of their right to withdraw from the study if they deemed it necessary and that the exercise was entirely voluntary with maximum respect for respondents’ privacy; their identities and information would be kept confidential and anonymity was a must as nothing would ever be disclosed. More-so, the process” (Mugenda *et al*.,2003: Akaranga & Makau, 2016).

Thirdly, the researcher avoided bias by not influencing study findings, but rather stayed objective in obtaining data/ information from respondents. Given the sensitive nature of Entity information, confidentiality factor was strictly observed backed by the Researcher’s own binding oath of secrecy. Therefore, all data and information obtained has strictly been used for this academic research purposes only.

**CHAPTER FOUR**

**PRESENTATION, ANALYSIS AND INTERPRETATION OF THE FINDINGS**

**4.1 Introduction**

This study chapter presents the findings, analysis and interpretations. The study investigated the relationship between contractor selection process and service delivery in water and sanitation development facility in northern Uganda. The study was underpinned by the following objectives: to ascertain the relationship between solicitation documentation and service delivery in WSDF-North, to find out the relationship between bid evaluation and service delivery in WSDF-North, to establish the relationship between due diligence and service delivery in WSDF-North.

**4.1.1 Response Rate**

 The response rate of findings are presented in table below

**Table 4.1: Response Rate**

|  |  |  |  |
| --- | --- | --- | --- |
| Instrument | Target | Actual Response | Response rate (%) |
| Questionnaire  | 121 | 116 | 96 |
| Interviews  | 40 | 24 | 60 |
| Total  | 161 | 140 | 86.9% |

***Source: Primary Data (2019)***

From Table 4.1 above, 121 questionnaires were distributed out of which 116 were filled and returned making a response rate of 96%. Out of the scheduled 40 face to face interviews, only 24 were carried out representing a response rate of 60% and on the overall, the response rate was 86.9%. These response rates are deemed good enough since Creswell (2003), noted that “ response rate above 50% of the target number is adequate.”

**4.2 Findings present demographic of respondents**

This section presents findings on demographic namely; sex, age, education, working experience, and position of the respondent, below.

**4.2.1 Gender of the Respondents**

The gender characteristics of respondents were investigated for this study, and findings are presented in Table below.

**Table 4.2 Summary statistics on gender of the respondents**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Male | 65 | 56.0 | 56.0 | 56.0 |
| Female | 51 | 44.0 | 44.0 | 100.0 |
| Total | 116 | 100.0 | 100.0 |  |

*Source: Primary Data (2019)*

Table 4.2 shows that the majority of the respondents were males (56%) and females were (44%). Although the gender findings indicated a discrepancy in favour of males, the study was representative since both males and females were included in the study sample.

**4.2.2 Age of the Respondents**

The study examined the age distribution of the respondents and the results obtained are presented in table 4.4 below.

**Table 4.3: Summary statistics on the Age bracket of the respondents**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 20-29 | 25 | 21.6 | 21.6 | 21.6 |
| 30-39 | 67 | 57.8 | 57.8 | 79.3 |
| 40-49 | 20 | 17.2 | 17.2 | 96.6 |
| 50 and Above | 4 | 3.4 | 3.4 | 100.0 |
| Total | 116 | 100.0 | 100.0 |  |

 ***Source: Primary Data (2019)***

From the table 4.3 above, the majority of respondents were between 30-39 years representing 57.8% , 25 respondents were between the age of 20 -29 representing 21.6% , those between 40-49 years were 20 representing 17.2% and those who were 50 years and above were 4 representing 3.4%. “This indicated that all categories of respondents in reference to different age groups were represented in this study.”

**4.2.3 Respondents by Highest Level of Education**

The Table 4.4 below presents the summary statistics on the level of education of the respondents.

**Table 4.4:** **Respondents highest level of Education**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Masters | 29 | 25.0 | 25.0 | 25.0 |
| Bachelors | 74 | 63.8 | 63.8 | 88.8 |
| Diploma | 13 | 11.2 | 11.2 | 100.0 |
| Total | 116 | 100.0 | 100.0 |  |

***Source: Primary Data (2019)***

From the table 4.4 above, 74 respondents representing 63.8% were Bachelor’s degree holders, 29 respondents representing 25% were master’s degree holders, 13 respondents representing 11.2% were Diploma holders. These results indicate that the respondents had good academic qualifications and were able to read and interpret the questionnaire and give appropriate responses.

**4.2.4 Respondents by years of experience**

The Table 4.5 below presents the summary statistics on “the respondents’ years of experience.”

**Table 4. 5: The experience of respondents**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Less than 5 years | 47 | 40.5 | 40.5 | 40.5 |
| 6-10 years | 44 | 37.9 | 37.9 | 78.4 |
| 11-15 years | 12 | 10.3 | 10.3 | 88.8 |
| Above 15 years | 13 | 11.2 | 11.2 | 100.0 |
| Total | 116 | 100.0 | 100.0 |  |

***Source: Primary Data (2019)***

From the table 4.5 above, 47 respondents representing 40.5% were less than 5 years, 44 respondents representing 37.9 % had “6-10 years of experience” , 12 respondents representing 10.3% had “11-15 years of experience”, “13 respondents representing 11.2%“ had above 15 years of experience. These results indicate the study involved respondents with diverse levels of experience.

**4.2.5 Respondents by marital status**

Table 4.6;- below presents the summary statistics on the respondents’ by marital status.

**Table 4.6: Respondents marital status**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Married | 64 | 55.2 | 55.2 | 55.2 |
| Single | 50 | 43.1 | 43.1 | 98.3 |
| Divorced | 2 | 1.7 | 1.7 | 100.0 |
| Total | 116 | 100.0 | 100.0 |  |

***Source: Primary Data (2019)***

From the table 4.6 above, 64 respondents representing 55.2% were married, 50 respondents representing 43.1 % were single, 2 respondents representing 1.7% had divorced. These results indicate the study involved respondents with diverse marital status.

**4.3 Results of descriptive statistics on solicitation documentation in WSDF-North.**

This sub-section presents descriptive statistics of the respondent’s views on solicitation documentation in WSDF-North.

**Table 4. 7: Descriptive Statistics on** **solicitation documentation in WSDF-North.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Items on solicitation documentation**  | SA | A | N | D | SD | Mean | S.Dev |
| Technical specifications, drawings and bills of quantities are the important part of contract, have legal value , short and complete | 79.3%(92) | 19%(22) | 1.7%(2) | 00 | 00 | 4.7759 | .45847 |
| Solicitation documentations issued by the entity to potential providers defines procurement objectives, scope of works, qualification, capacity and experience of potential providers  | 39.7%(46) | 53.4%(62) | 6.9%(8) | 00 | 00 | 4.3276 | .60110 |
| Water and sanitation projects are complex and complicated to design drawings, accurate bills of quantities, and technical specifications  | 19%(22) | 40.5%(47) | 11.2%(13) | 19%(22) | 10.3%(12) | 3.3879 | 1.27703 |
| The entity employs specialists to design technical specifications, drawings and bills of quantities for complex work projects  | 38.8%(45) | 40.5%(47) | 12.1%(14) | 2.6%(3) | 6%(7) | 4.0345 | 1.07890 |
| The entity adheres to competitive procurement methods to improve efficiency and effectiveness in a free market economy to achieve cost effective, quality and timely service delivery. | 44.8%(52) | 43.1%(50) | 8.6%(10) | 1.7%(2) | 1.7%(2) | 4.2759 | .82973 |
| The preparation of solicitation documentation starts with procurement initiation by the end user with clear statement of requirements, bills of quantities, designs and technical specifications | 56%(65) | 31.9%(37) | 9.5%(11) | 00 | 2.6%(3) | 4.3879 | .86247 |
| The open competitive tendering increases uncertainty, long bidding period and deliberate submission of an unrealistically low bid by bidders | 9.5%(11) | 36.2%(42) | 21.6%(25) | 27.6%(32) | 5.2%(6) | 3.1724 | 1.09763 |
| The tendering process is “based on principles of competition, fairness and accessibility , transparency , openness and probity”  | 46.6%(54) | 37.1%(43) | 6.9%(8) | 5.2%(6) | 4.3%(5) | 4.1638 | 1.05455 |

***Source: Primary data (2019)***

**“SD = Strongly Disagree, D = Disagree, N = Neutral, SA = Strongly Agree and A = Agree, % = Percentage, S.Dev = Standard deviation”**

On the question of whether technical specifications, drawings and bills of quantities are the important part of contract, have legal value , short and complete, the respondent’s responses indicated that 92 respondents representing 79.3% strongly agreed, 19 respondents representing 22% agreed, 2 respondents representing 1.7% preferred to be neutral. The mean = 4.7759 “on the five-point Likert scale”, indicates that generally the respondents strongly agreed that technical specifications, drawings and bills of quantities are the important part of contract, have legal value , short and complete.

*The respondents interviewed stated that;“…the specifications for water and construction projects are indicated by Ministry of Water and Environment. There are challenges of Bill of Quantities being different from designs/drawings. The contractors seek approval for change of design. The entity sometimes indicates brand name in standard design which is a challenge to get after sale service”.*

On the question of whether solicitation documentations issued by the entity to potential providers defines procurement objectives, scope of works, qualification, capacity and experience of potential providers, the respondent’s responses indicated that 46 respondents representing 39.7% strongly agreed, 62 respondents representing 53.4% agreed, 8 respondents representing 6.9% preferred to be neutral. The mean = 4.3276 on the “ five-point Likert scale,” indicates that generally the respondents strongly agreed that solicitation documentations issued by the entity to potential providers defines procurement objectives, scope yet did not meet all service delivery expectations.

On the question of whether water and sanitation projects are complex and complicated to design drawings, accurate bills of quantities, and technical specifications, the respondent’s responses indicated that 22 respondents representing 19% strongly agreed, 47 respondents representing 40.5% agreed, 13 respondents representing 11.2% preferred to be neutral, 22 respondents representing 19% disagreed, 12 respondents representing 10.3% strongly disagreed. The mean = 3.3879 on the “five-point Likert scale,” indicates that generally the respondents have mixed opinion on whether water and sanitation projects are complex and complicated to design drawings, accurate bills of quantities, and technical specifications as such could have impacted negatively on service delivery.

On the question of whether the entity employs specialists to design technical specifications, drawings and bills of quantities for complex work projects, the respondent’s responses indicated that 45 respondents representing 38.8% strongly agreed, 47 respondents representing 40.5% agreed, 14 respondents representing 12.1% preferred to be neutral, 3 respondents representing 2.6% disagreed, 7 respondents representing 6% strongly disagreed. The mean = 4.0345 on the five-point Likert scale indicates that generally the respondents agreed that the entity employs specialists to design technical specifications, drawings and bills of quantities for complex work projects as such skewed the service delivery expectations.

On the question of whether the entity adheres to competitive procurement methods to improve efficiency and effectiveness in a free market economy to achieve cost effective, quality and timely service delivery, the respondent’s responses indicated that 52 respondents representing 44.8% strongly agreed, 50 respondents representing 43.1% agreed, 10 respondents representing 8.6% preferred to be neutral, 2 respondents representing 1.7% disagreed, 2 respondents representing 1.7% strongly disagreed. The mean = 4.2759 on the “five-point Likert scale” indicates that generally the respondents agreed that the entity adheres to competitive procurement methods to improve efficiency and effectiveness in a free market economy to achieve cost effective, quality and timely service delivery.

*The respondents interviewed stated that “…it is compulsory for all contractors to follow the environmental and social issues, Health and safety policy and Social security issues such as NSSF”.*

On the question of whether the preparation of solicitation documentation starts with procurement initiation by the end user with clear statement of requirements, bills of quantities, designs and technical specifications, the respondent’s responses indicated that 65 respondents representing 56% strongly agreed, 37 respondents representing 31.9% agreed, 11 respondents representing 9.5% preferred to be neutral, 3 respondents representing 2.6% strongly disagreed. The mean = 4.3879 on the “five-point Likert scale” indicates that generally the respondents agreed that the preparation of solicitation documentation starts with procurement initiation by the end user with clear statement of requirements, bills of quantities, designs and technical specifications.

On the question of whether the open competitive tendering “increases uncertainty, long bidding period and deliberate submission of an unrealistically low bid by bidders” , the respondent’s responses indicated that 11 respondents representing 9.5% strongly agreed, 42 respondents representing 36.2% agreed, 25 respondents representing 21.6% preferred to be neutral, 32 respondents representing 27.6% disagreed and 6 respondents representing 5.2% strongly disagreed. The mean = 3.1724 on the “five-point Likert scale” indicates that generally the respondents had mixed opinion on whether open competitive tendering increases uncertainty, long bidding period and deliberate submission of an unrealistically low bid by bidders as such impacted negatively on service delivery outcomes.

On the question of whether the “ tendering process is based on principles of competition, fairness and accessibility, transparency, openness and probity” , the respondent’s responses indicated that 54 respondents representing 46.6% strongly agreed, 43 respondents representing 37.1% agreed, 8 respondents representing 6.9% preferred to be neutral, 6 respondents representing 5.2% disagreed and 5 respondents representing 4.3% strongly disagreed. The mean = 4.1638 on the five-point Likert scale indicates that generally the respondents agreed that the tendering process is based on principles of competition, fairness and accessibility, transparency, openness and probity.

In the interviews, the respondents indicated thatthe traditional procurement system is not clear on which point(s) determines the right choice of a contractor. It is confusing as the perception is it uses selected tenders as only contractors with the right grading of the amount of the contract sum qualifies to submit tenders. Hence the competitive price should be utilized as a result. If the grading qualifies contractors to submit tenders why shouldn’t competitive pricing be major influencing factor for making a choice, and pricing weighs higher than functionality and other set of criteria. That is the weakness and gap that needs to be closed to remedy the system. Some of the projects are not complying with the criteria for the procurement process; therefore, this can be eliminated by having an internal auditing department that will verify that all the criteria has been complied with.

**4.3 Hypothesis testing one:**

There is a significant relationship between solicitation documentation and service delivery in WSDF-North.

**4.3.1 Pearson Correlation Coefficient**

The Pearson correlation coefficient was used to test hypothesis and the results are shown below.

**Table 4. 8: Correlation matrix for solicitation documentation and service delivery in WSDF-North.**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Solicitation documentation | Service delivery |
| Solicitation documentation | Pearson Correlation | 1 | .798(\*\*) |
|  | Sig. (2-tailed) |  | .000 |
|  | N | 116 | 116 |
| Service delivery | Pearson Correlation | .798(\*\*) | 1 |
|  | Sig. (2-tailed) | .000 | . |
|  | N | 116 | 116 |

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Source Primary data (2019).**

The results show that the correlation coefficient is 0.798 (\*\*) and its significance level 0.01. This implies that solicitation documentation influences service delivery in WSDF-North. Therefore according to the results there is a strong positive significant relationship between solicitation documentation and service delivery in WSDF-North. Therefore the alternative hypothesis that was earlier claimed is accepted.

**4.14 Regression Analysis**

A regression analysis for solicitation documentation and service delivery in WSDF-North was run and the results from the analysis are below.

Table 4. 9: Regression analysis for solicitation documentation and service delivery in WSDF-North

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Model | R | R Squared | Adjusted R Squared | Std. Error of the Estimate |
| 1 | .798 (b) | .637 | .637 | .36939 |

1. **Predictors: (Constant),** solicitation documentation

**Source Primary data (2019)**

Table 4.9 provides the R and R2 value. The R value is 0.798, which represents strong positive correlation between the variables. The R2 value indicates how much of the dependent variable, service delivery can be explained by the independent variable solicitation documentation. The adjusted R square value is 0.637. Therefore the adjusted square value of .637 implies that solicitation documentation predicts service delivery in WSDF-North; in other words service delivery in WSDF-North is dependent on solicitation documentation by 63.7%.

**4.4 Summary of descriptive statistics on** **bid evaluation in WSDF-North**

This sub-section presents descriptive statistics of the respondents’ views on bid evaluation in WSDF-North.

**Table 4. 10: Descriptive statistics on bid evaluation in WSDF-North.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Items on bid evaluation** | **SA** | **A** | **N** | **D** | **SD** | **Mean** | **S.Dev** |
| Evaluation criteria is used to identify most economically advantageous proposal or tender | 40.5%(47) | 50%(58) | 5.2%(6) | 4.3%(5) | 00 | 4.2672 | .75016 |
| The entity considers cost/price, delivery schedule, quality and good workmanship as major criteria during bid evaluation | 30.2%(35) | 59.5%(69) | 4.3%(5) | 1.7%(2) | 5.3%(5) | 4.0948 | .89422 |
| The contractors financial viability, experience, qualification of key personnel, financial guarantee and capital expenditure are key in water and sanitation projects  | 47.4%(55) | 45.7%(53) | 5.2%(6) | 1.7%(2) | 00 | 4.3879 | .66948 |
| The comparative bid evaluation helps the entity to identify opportunistic behavior of bidders before entering into a contract | 18.1%(21) | 47.4%(55) | 23.3%(27) | 11.2%(13) | 00 | 3.7241 | .89040 |
| The members of evaluation have “appropriate level of experience depending on value and complexity of the procurement transaction” | 31%(36) | 50%(58) | 6.9%(8) | 10.3%(12) | 1.7%(2) | 3.9828 | .97787 |
| The evaluation committee sometimes amend evaluation criteria during bid evaluation exercise | 14.7%(17) | 27.6%(32) | 28.4%(33) | 18.1%(21) | 11.2%(13) | 3.1638 | 1.21544 |
| The entity considers bid evaluation as critical stage of procurement process | 50%(58) | 38.8%(45) | 8.6%(10) | 2.6%(3) | 00 | 4.3621 | .75061 |
| Evaluation committee does thorough scrutiny of documents submitted by contractors/bidders before recommendation for award of contract | 48.3%(56) | 42.2%(49) | 6.9%(8) | 2.6%(3) | 00 | 4.3621 | .72707 |

**Source: Primary Data (2019)**

**“SD = Strongly Disagree, D = Disagree, N = Neutral, SA = Strongly Agree and A = Agree,**

**% = Percentage”**

On the question of whether evaluation criteria is used to identify most economically advantageous proposal or tender, the respondent’s responses indicated that 47 respondents representing 40.5% strongly agreed, 58 respondents representing 50% agreed, 6 respondents representing 5.2% preferred to be neutral and 5 respondents representing 4.3% disagreed. The mean = 4.2672 on the “five-point Likert scale” indicates that generally the respondents agreed that evaluation criteria is used to identify most economically advantageous proposal or tender.

On the question of whether the entity considers cost/price, delivery schedule, quality and good workmanship as major criteria during bid evaluation, the respondent’s responses indicated that 35 respondents representing 30.2% strongly agreed, 69 respondents representing 59.5% agreed, 5 respondents representing 4.3% preferred to be neutral, 2 respondents representing 1.7% disagreed and 5 respondents representing 5.3% strongly disagreed. The mean = 4.0948 on the “five-point Likert scale” indicates that generally the respondents agreed that the entity considers cost/price, delivery schedule, quality and good workmanship as major criteria during bid evaluation.

*Respondents interviewed observed that consultants are no longer involved in tender evaluations, which create a problem for pinpointing exactly what is the major influencing factor for choosing any contractor. The adjudication committee can decide on any contractor even if it is not on the basis of competitive pricing of the bid. The decision is based on human judgment and if that can be eliminated it may bring about some clarity into making sense of the criteria. What contributes to abandonment of projects is overlooking the financial capacity of the contractor. Mostly, contractors will borrow money from friends to finance the project, not from banks since they are not bankable.*

*Leaking of project estimates to contractors by consultants and/or government officials so as to bring the bid applicant closer to the contract sum to guarantee appointment. In addition there is no system that is free from errors, but attempts can be made to remove human induced ones. Unfortunately such an action provides an unfair advantage over other contractors.*

On the question of whether the contractors financial viability, experience, qualification of key personnel, financial guarantee and capital expenditure are key in water and sanitation projects, the respondent’s responses indicated that 55 respondents representing 47.4% strongly agreed, 53 respondents representing 45.7% agreed, 6 respondents representing 5.2% preferred to be neutral, 2 respondents representing 1.7% disagreed. The mean = 4.3879 on the “five-point Likert scale” indicates that generally the respondents agreed that the contractors financial viability, experience, qualification of key personnel, financial guarantee and capital expenditure are key in water and sanitation projects.

On the question of whether the comparative bid evaluation helps the entity to identify opportunistic behavior of bidders before entering into a contract, the respondent’s responses indicated that 21 respondents representing 18.1% strongly agreed, 55 respondents representing 47.4% agreed, 27 respondents representing 23.3% preferred to be neutral, 13 respondents representing 11.2% disagreed. The mean = 3.7241 on the “five-point Likert scale” indicates that generally the respondents agreed that the comparative bid evaluation helps the entity to identify opportunistic behavior of bidders before entering into a contract.

On the question of whether the members of evaluation have “appropriate level of experience depending on value and complexity of the procurement transaction” , the respondent’s responses indicated that” 36 respondents representing 31% strongly agreed, 58 respondents representing 50% agreed, 8 respondents representing 6.9% preferred to be neutral, 12 respondents representing 10.3% disagreed and 2 respondents representing 1.7% strongly disagreed”. The mean = 3.9828 on the “five-point Likert scale” indicates that generally the respondents agreed that the members of evaluation have “appropriate level of experience depending on value and complexity of the procurement transaction”.

On the question of whether the evaluation committee sometimes amend evaluation criteria during bid evaluation exercise, the respondent’s responses indicated that “17 respondents representing 14.7% strongly agreed, 32 respondents representing 27.6% agreed, 33 respondents representing 28.4% preferred to be neutral, 21 respondents representing 18.1% disagreed and 13 respondents representing 11.2% strongly disagreed”. The mean = 3.1638 on the “five-point Likert scale” indicates that generally the respondents have mixed opinion on whether the evaluation committee sometimes amends evaluation criteria during bid evaluation exercise.

On the question of whether the entity considers bid evaluation as critical stage of procurement process, the respondent’s responses indicated that 58 respondents representing 50% strongly agreed, 45 respondents representing 38.8% agreed, 10 respondents representing 8.6% preferred to be neutral and 3 respondents representing 2.6% disagreed. The mean = 4.3621 on “the five-point Likert scale” indicates that generally the respondents agreed that the entity considers bid evaluation as critical stage of procurement process.

On the question of whether evaluation committee does thorough scrutiny of documents submitted by contractors/bidders before recommendation for award of contract, the respondent’s responses indicated that “56 respondents representing 48.3% strongly agreed, 49 respondents representing 42.2% agreed, 8 respondents representing 6.9% preferred to be neutral and 3 respondents representing 2.6% disagreed.” The mean = 4.3621 on the “five-point Likert scale” indicates that generally the respondents agreed that the evaluation committee does thorough scrutiny of documents submitted by contractors/bidders before recommendation for award of contract.

*Respondents interviewed noted “the system provides a fair and competitive way for tendering, with the exception of whoever makes the adjudication. The identified or the weakness in the whole evaluation by the adjudication committee is when they have decided on a particular contractor prior to the evaluation, if the majority are in consensus the particular contractor gets appointed whether it satisfies all the relevant criteria or not. The human factor still plays a big role in decision making, which opens up room for abuse of the procurement process”.*

Serious overhaul of the system needs to be done sooner rather than later to avoid continued abuse of the procurement process. The government is aware of all the challenges by the procurement process but anything that will hamper corruption will not be supported by anyone.

There is a formula in place to calculate the points acquired by the different contractors, so why then the adjudication committee ignores that and justifies other criteria like lack of experience, or financial capacity to discredit awarding the contract to the contractor with more points. Unfortunately that is where the weakness of the whole system fails, it leaves room for manipulation. One of the chronic problems of the procurement process is the interference of the politicians looking after their interest by influencing procurement decisions to bypass protocol. Usually this is where the bulk of ill qualified firms gets appointed based on the political affiliations.

**4.3 Hypothesis testing two:**

There is a significant relationship between bid evaluation and service delivery in WSDF-North.

**4.3.1 Pearson Correlation Coefficient**

The Pearson correlation coefficient was used to test hypothesis and the results are shown below.

**Table 4.11: Correlation matrix for bid evaluation and service delivery in WSDF-North.**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Bid evaluation | Service delivery |
| Bid evaluation | Pearson Correlation | 1 | .912 |
|  | Sig. (2-tailed) | . | .000 |
|  | N | 116 | 116 |
| Service delivery  | Pearson Correlation | .912 | 1 |
|  | Sig. (2-tailed) | .000 | .000 |
|  | N | 116 | 116 |

\* Correlation is significant at the 0.01 level (2-tailed).

**Source: Primary Data (2019)**

The results show that the correlation coefficient is 0.912 (\*\*) and its significance level 0.01. This implies that bid evaluation influences service delivery in WSDF-North. Therefore according to the results there is a strong positive significant relationship between bid evaluation and service delivery in WSDF-North. Therefore the alternative hypothesis that was earlier claimed is accepted.

**4.14 Regression Analysis**

A regression analysis for bid evaluation and service delivery in WSDF-North was run and the results from the analysis are below in table 4.12

Table 4. 12: Regression analysis for bid evaluation and service delivery in WSDF-North

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Model | R | R Squared | Adjusted R Squared | Std. Error of the Estimate |
| 1 | .912 (c) | .832 | .832 | .51607 |

1. **Predictors: (Constant),** bid evaluation

 **Source Primary data (2019)**

Table 4.12 provides the R and R2 value. The R value is 0.832, which represents strong positive correlation between the variables. The R2 value indicates how much of the dependent variable, service delivery can be explained by the independent variable bid evaluation. The adjusted R square value is 0.832. Therefore the adjusted square value of .832 implies that bid evaluation predicts service delivery in WSDF-North; in other words service delivery in WSDF-North is dependent on bid evaluation by 83.2%.

**4.5 Summary of descriptive statistics on due diligence in WSDF-North**

This sub-section presents descriptive statistics of the respondents’views on due diligence in WSDF-North.

**Table 4. 13: Descriptive statistics on due diligence in WSDF-North.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Items on due diligence** | **SA** | **A** | **N** | **D** | **SD** | **Mean** | **S.Dev** |
| The entity conducts due diligence to minimize risks associated with non-performance of bidder  | 33.6%(39) | 50%(58) | 8.6%(10) | 7.8%(9) | 00 | 4.0948 | .85444 |
| Before award of contract the entity verifies financial & personnel information, legal documents, previous performance, assets and liabilities of the bidders  | 24.1%(28) | 57.8%(67) | 16.4%(19) | 1.7%(2) | 00 | 4.0431 | .69021 |
| The procurement officials are protected from undue influence from internal and external interference and influence during contractor selection process  | 6.9%(8) | 44.8%(52) | 25%(29) | 17.2%(20) | 6%(7) | 3.2931 | 1.03013  |
| The entity has ever recommended bidders for suspension to authority for breach of code of ethics in procurement process  | 17.2%(20) | 34.5%(40) | 35.3%(41) | 9.5%(11) | 3.4%(4) | 3.5259 | .99966 |
| The entity sometimes detects collusion or bid rigging or coalitions to win contracts  | 16.4%(19) | 38.8%(45) | 29.3%(34) | 11.2%(13) | 4.3%(5) | 3.5172 | 1.03405 |
| The entity follows process of due diligence in aspects of  qualification, financial statements, Assets, past performance, technical capability, human resources, legal liabilities, tax obligations, and socio-economic factors of a bidder for water and sanitation projects | 24.1%(28) | 57.8%(67) | 12.1%(14) | 4.3%(5) | 1.7%(2) | 3.9828 | .83388 |
| The entity conducts due diligence before entering into contractual arrangement  | 25.9%(30) | 49.1%(57) | 24.1%(28) | 15.5%(18) | 9.4%(11) | 3.9138 | .89023 |
| The entity verifies the human right and gender issues on a contractor/bidder  | 13.8%(16) | 28.4%(33) | 30.2%(35) | 25%(29) | 2.6%(3) | 3.2586 | 1.06421 |
| The entity considers environmental and social considerations of a contractor in construction projects  | 16.4%(19) | 63.8%(74) | 11.2%(13) | 5.2%(6) | 3.4%(4) | 3.8448 | .88075 |

**Source: Primary Data (2019)**

**“SD = Strongly Disagree, D = Disagree, N = Neutral, SA = Strongly Agree and A = Agree,**

**% = Percentage****”**

On the question of whether the entity conducts due diligence to minimize risks associated with non-performance of bidder, the respondent’s responses indicated that “39 respondents representing 33.6% strongly agreed, 58 respondents representing 50% agreed, 10 respondents representing 8.6% preferred to be neutral and 9 respondents representing 7.8% disagreed” . The mean = 4.0948 on the “five-point Likert scale” indicates that generally the respondents agreed that the entity conducts due diligence to minimize risks associated with non-performance of bidder.

*A respondent interviewed observed that; ‘’Ministry of Water and Environment, NGOs usually conduct due diligence but district local governments rarely conduct due diligence’’.*

On the question of whether before award of contract the entity verifies financial and personnel information, legal documents, previous performance, assets and liabilities of the bidders, the respondent’s responses indicated that 28 respondents representing 24.1% strongly agreed, 67 respondents representing 57.8% agreed, 19 respondents representing 16.4% preferred to be neutral and 2 respondents representing 1.7% disagreed. The mean = 4.0431 on the “five-point Likert scale” indicates that generally the respondents agreed that before award of contract the entity verifies financial and personnel information, legal documents, previous performance, assets and liabilities of the bidders.

On the question of whether the procurement officials are protected from undue influence from internal and external interference and influence during contractor selection process, the respondent’s responses indicated that “8 respondents representing 6.9% strongly agreed, 52 respondents representing 44.8% agreed, 29 respondents representing 25% preferred to be neutral, 20 respondents representing 17.2% disagreed and 7 respondents representing 6% strongly disagreed.” The mean = 3.2931 on the “five-point Likert scale” indicates that generally the respondents had mixed opinion on whether the procurement officials are protected from undue influence from internal and external interference and influence during contractor selection process.

On the question of whether the Entity has ever recommended bidders for suspension to authority for breach of code of ethics in procurement process, the respondent’s responses indicated that 20 respondents representing 17.2% strongly agreed, 40 respondents representing 34.5% agreed, 41 respondents representing 35.3% preferred to be neutral, 11 respondents representing 9.5% disagreed and 4 respondents representing 3.4% strongly disagreed. The mean = 3.5259 on the “five-point Likert scale” indicates that generally the respondents agreed thatthe entity has ever recommended bidders for suspension to authority for breach of code of ethics in procurement process.

On the question of whether the entity sometimes detects collusion or bid rigging or coalitions to win contracts, the respondent’s responses indicated that “19 respondents representing 16.4% strongly agreed, 45 respondents representing 38.8% agreed, 34 respondents representing 29.3% preferred to be neutral, 13 respondents representing 11.2% disagreed and 5 respondents representing 4.3% strongly disagreed.” The mean = 3.5172 on the “five-point Likert scale” indicates that generally the respondents agreed that the entity sometimes detects collusion or bid rigging or coalitions to win contracts.

On the question of whether the entity follows process of due diligence in aspects of;- qualification, financial statements, Assets, past performance, technical capability, human resources, legal liabilities, tax obligations, and socio-economic factors of a bidder for water and sanitation projects, the respondent’s responses indicated that “28 respondents representing 24.1% strongly agreed, 67 respondents representing 57.8% agreed, 14 respondents representing 12.1% preferred to be neutral, 5 respondents representing 4.3% disagreed and 2 respondents representing 1.7% strongly disagreed”. The mean = 3.9828 on the “five-point Likert scale” indicates that generally the respondents agreed that the entity follows process of due diligence in aspects of;- qualification, financial statements, Assets, past performance, technical capability, human resources, legal liabilities, tax obligations, and socio-economic factors of a bidder for water and sanitation projects.

On the question of whether the entity conducts due diligence before entering into contractual arrangement, the respondent’s responses indicated that “30 respondents representing 25.9% strongly agreed, 57 respondents representing 49.1% agreed, 28 respondents representing 24.1% preferred to be neutral, 18 respondents representing 15.5% disagreed and 11 respondents representing 9.4% strongly disagreed”. The mean = 3.9138 on the “five-point Likert scale” indicates that generally the respondents agreed that the entity conducts due diligence before entering into contractual arrangement.

On the question of whether The entity verifies the human right and gender issues on a contractor/bidder, the respondent’s responses indicated that “16 respondents representing 13.8% strongly agreed, 33 respondents representing 28.4% agreed, 35 respondents representing 30.2% preferred to be neutral, 29 respondents representing 25% disagreed and 3 respondents representing 2.6% strongly disagreed.” The mean = 3.2586on the “five-point Likert scale” indicates that generally the respondents had mixed opinion on whetherthe entity verifies the human right and gender issues on a contractor/bidder.

On the question of whether the entity considers environmental and social considerations of a contractor in construction projects, the respondent’s responses indicated that “19 respondents representing 16.4% strongly agreed, 74 respondents representing 63.8% agreed, 13 respondents representing 11.2% preferred to be neutral, 6 respondents representing 5.2% disagreed and 4 respondents representing 3.4% strongly disagreed.” The mean = 3.8448 on the “five-point Likert scale” indicates that generally the respondents agreed that the entity considers environmental and social considerations of a contractor in construction projects.

**4.3 Hypothesis testing three:**

There is a significant relationship between due diligence and service delivery in WSDF-North.

**4.3.3 Pearson Correlation Coefficient**

The Pearson correlation coefficient was used to test hypothesis and the results asgiven in table

4. 14 below.

Table 4. 14: Correlation matrix for due diligence and service delivery in WSDF-North

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Due diligence** | **Service delivery** |
| **Due diligence** | Pearson Correlation | 1 | .592(\*\*) |
|  | Sig. (2-tailed) |  | .000 |
|  | N | 116 | 116 |
| Service delivery | Pearson Correlation | .592(\*\*) | 1 |
|  | Sig. (2-tailed) | .000 | . |
|  | N | 116 | 116 |

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Source Primary data (2019)**

The results show that the correlation coefficient is 0.592 (\*\*) and its significance level 0.01. This implies that due diligence influences service delivery in WSDF-North. Therefore according to the results there is a strong positive significant relationship between due diligence and service delivery in WSDF-North. Therefore the alternative hypothesis that was earlier claimed is accepted.

**4.14 Regression Analysis**

A regression analysis for due diligence and service delivery in WSDF-North was run and the results are presented in below.

**Table 4.15: Regression analysis for due diligence and service delivery in WSDF-North**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Model | R | R Squared | Adjusted R Squared | Std. Error of the Estimate |
| 1 | .592 (a) | .350 | .350 | .51738 |

1. **Predictors: (Constant), due diligence**

**Source Primary data (2019)**

Table 4.15 provides the R and R2 value. The R value is 0.592, which represents strong positive correlation between the variables. The R2 value indicates how much of the dependent variable, service delivery can be explained by the independent variable due diligence. The adjusted R square value is 0.350. Therefore the adjusted square value of .350 implies that due diligence predicts service delivery in WSDF-North; in other words service delivery in WSDF-North is dependent on due diligence by 35%.

**4.6 Summary of descriptive statistics on service delivery in WSDF-North**

This sub-section presents descriptive statistics of the respondents ‘views on service delivery in WSDF-North.

**Table 4.16: Descriptive statistics on service delivery in WSDF-North.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Items on service delivery**  | **SA** | **A** | **N** | **D** | **SD** | **Mean** | **S.Dev** |
| The functionality of water and sanitation facilities in villages and pre-urban areas is Satisfactory | 10.3% (12) | 76.7% (89) | 6.9% (8) | 6% (7) | 00 | 3.9138 | .64023 |
| The quality of the works are clearly specified in solicitation documentation document and contractors do not deviate from quality set standards  | 23.3% (27) | 56% (65) | 6%(7) | 14.6%(17) | 00 | 3.8793 | .93395 |
| The water sources in villages and pre-urban arrears are never contaminated | 9.5% (11) | 31% (36) | 31.9% (37) | 19.8%(23) | 7.8% (9) | 3.1466 | 1.08951 |
| The stakeholders supervise and monitor water and sanitation sites regularly | 34.5% (40) | 51.7% (60) | 12.1% (14) | 1.7% (2) | 00 | 4.1897 | .70912 |
| The entity pays contractors for completed works in time | 24.1% (28) | 42.2% (49) | 15.5% (18) | 12.9%(15) | 5.2% (6) | 3.6724 | 1.13272 |
| The contractors complete works in required time schedule | 15.5% (18) | 25.9% (30) | 19.8% (23) | 32.8%(38) | 6% (7) | 3.1207 | 1.20257 |
| The contractors sometimes request for extension of contract period  | 21.6% (25) | 68.1% (79) | 3.4% (4) | 5.2% (6) | 1.7% (2) | 4.0259 | .78531 |
| The entity conducts timely tendering process for water and sanitation projects | 32.8% (38) | 52.6% (61) | 12.9% (15) | 1.7% (2) | 00 | 4.1638 | .70949 |
| Cost savings have been achieved through contractor selection process | 20.7% (24) | 52.6% (61) | 14.7% (17) | 8.6% (10) | 3.4% (4) | 3.7845 | .98516 |
| The budget for water and sanitation matches ever increasing population in villages and pre-urban areas | 16.4% (19) | 25% (29) | 23.3% (27) | 24.1%(28) | 11.2% (13) | 3.1121 | 1.26334 |
| There are variations and additional works for water and sanitation projects  | 19% (22) | 57.8% (67) | 10.3%(12) | 11.2%(13) | 1.7% (2) | 3.3793 | .93170 |
| The entity sometimes reviews designs and specifications after contract signing  | 19% (22) | 51.7% (60) | 13.8% (16) | 13.8% (16) | 1.7% (2) | 3.7241 | .98322 |
| Water quantities available to households from the facilities meets the national standards | 21.6% (25) | 41.4% (48) | 21.6% (25) | 12.9% (15) | 2.6% (3) | 3.6638 | 1.03792 |
| The water and sanitation coverage in the district is according to set target | 8.6% (10) | 46.6% (54) | 19% (22) | 25.9% (30) | 00 | 3.6466 | .88715 |
| The water facilities constructed give high yield throughout the year  | 12.1% (14) | 54.3% (63) | 21.6% (25) | 10.3% (12) | 1.7% (2) | 3.6466 | .88715 |
| The entity increases water quantities to meet the demands of growing population | 24.1% (28) | 57.8% (67) | 8.6% (10) | 7.8% (9) | 1.7% (2) | 3.9483 | .89292 |

***Source: Primary data (2019)***

**“SD = Strongly Disagree, D = Disagree, N = Neutral, SA = Strongly Agree and A = Agree, % = Percentage, S.Dev = Standard deviation”**

On the question of whether the functionality of water and sanitation facilities in villages and pre-urban areas is satisfactory, the respondent’s responses indicated that 12 respondents representing 10.3% strongly agreed, 89 respondents representing 76.9% agreed, 8 respondents representing 6.9% preferred to be neutral and 7 respondents representing 6% disagreed. The mean = 3.9138 on the” five-point Likert scale” indicates that generally the respondents agreed that the functionality of water and sanitation facilities in villages and pre-urban areas is satisfactory.

On the question of whether the quality of the works are clearly specified in solicitation documentation document and contractors do not deviate from quality set standards, the respondent’s responses indicated that 27 respondents representing 23.3% strongly agreed, 65 respondents representing 56% agreed, 7 respondents representing 6% preferred to be neutral and 17 respondents representing 14.6% disagreed. The mean = 3.8793on the “five-point Likert scale” indicates that generally the respondents agreed that the quality of the works are clearly specified in solicitation documentation document and contractors do not deviate from quality set standards.

*The respondents interviewed observed; “the Quality of production well keeps falling. The water is hard according to public complains which hardness is due to minerals and sometimes the pipes are rusted. Hard water is safe for drinking but challenge is on domestic uses. However, the water can be treated in future but it is costly at moment. Water sometimes get contaminated at premises of the client. We are now installing UPVC casing (plastic) which Ministry of Water and Environment has recommended stainless steel pipes. The problem is the cost has been tripled but they prevent coloring of water”.*

On the question of whether the water sources in villages and pre-urban arrears are never contaminated, the respondent’s responses indicated that 11 respondents representing 9.5% strongly agreed, 36 respondents representing 31% agreed, 37 respondents representing 31.9% preferred to be neutral, 23 respondents representing 19.8% disagreed and 9 respondents representing 7.8% strongly disagreed. The mean = 3.1466on the “five-point Likert scale” indicates that generally the respondents had mixed opinion on whether the water sources in villages and pre-urban areas are never contaminated.

*The respondents interviewed noted; “water sometimes get contaminated at household level. Every household has latrine and the number of households in this village are 247 and total population of 6,017. Some households don’t have the hand washing facilities. The management is planning to enforce use of it in the villages with boreholes’’.*

On the question of whether the stakeholders supervise and monitor water and sanitation sites regularly, the respondent’s responses indicated that 40 respondents representing 34.5% strongly agreed, 60 respondents representing 51.7% agreed, 14 respondents representing 12.1% preferred to be neutral and 2 respondents representing 1.7% disagreed. The mean = 4.1897 on “the five-point Likert scale” indicates that generally the respondents agreed that the stakeholders supervise and monitor water and sanitation sites regularly.

On the question of whether the entity pays contractors for completed works in time, the respondent’s responses indicated that 28 respondents representing 24.1% strongly agreed, 49 respondents representing 42.2% agreed, 18 respondents representing 15.5% preferred to be neutral, 15 respondents representing 12.9% disagreed and 6 respondents representing 5.2% strongly disagreed. The mean = 3.6724 on the “five-point Likert scale” indicates that generally the respondents agreed that the entity pays contractors for completed works in time.

On the question of whether the contractors complete works in required time schedule, the respondent’s responses indicated that 18 respondents representing 15.5% strongly agreed, 30 respondents representing 25.9% agreed, 23 respondents representing 19.8% preferred to be neutral, 38 respondents representing 32.8% disagreed and 7 respondents representing 6% strongly disagreed. The mean = 3.1207 on the” five-point Likert scale” indicates that generally the respondents had mixed opinion on whether the contractors complete works in required time schedule.

On the question of whether the contractors sometimes request for extension of contract period, the respondent’s responses indicated that 25 respondents representing 21.6% strongly agreed, 79 respondents representing 68.1% agreed, 4 respondents representing 3.4% preferred to be neutral, 6 respondents representing 5.2% disagreed and 2 respondents representing 1.7% strongly disagreed. The mean = 4.0259on the “five-point Likert scale” indicates that generally the respondents agreed that the contractors sometimes request for extension of contract period.

On the question of whether the entity conducts timely tendering process for water and sanitation projects, the respondent’s responses indicated that 38 respondents representing 32.8% strongly agreed, 61 respondents representing 52.6% agreed, 15 respondents representing 12.9% preferred to be neutral and 2 respondents representing 1.7% disagreed. The mean = 4.1638on the five-point Likert scale indicates that generally the respondents agreed that the entity conducts timely tendering process for water and sanitation projects.

On the question of whether cost savings have been achieved through contractor selection process, the respondent’s responses indicated that 24 respondents representing 20.7% strongly agreed, 61 respondents representing 52.6% agreed, 17 respondents representing 14.7% preferred to be neutral, 10 respondents representing 8.6% disagreed and 4 respondents representing 3.4% strongly disagreed. The mean = 3.7845 on the” five-point Likert scale” indicates that generally the respondents agreed that cost savings have been achieved through contractor selection process.

On the question of whether the budget for water and sanitation matches ever increasing population in villages and pre-urban areas, the respondent’s responses indicated that 19 respondents representing 16.4% strongly agreed, 29 respondents representing 25% agreed, 27 respondents representing 24.1% preferred to be neutral, 28 respondents representing 24.1% disagreed and 13 respondents representing 11.2% strongly disagreed. The mean = 3.1121 on the “five-point Likert scale” indicates that generally the respondents had mixed opinion on whether the budget for water and sanitation matches ever increasing population in villages and pre-urban areas.

On the question of whether the budget for water and sanitation matches ever increasing population in villages and pre-urban areas, the respondents interviewed noted that the production cost are high, but the entity is able to break even*.*

*One observes; “The customers pay in time and the collection efficiency is 98%, electricity is prepaid and there are no problems. In Physical Year 2017, payments were not coming timely due to budget cuts e.g. BOU projects have a challenge in NWS. The problem of non-payment of contractors. It takes 8-9 months to receive payment”.*

*Another respondent observed; “The management incurs less savings. The people pay water services well during dry season but during rainy season people’s consumption rate is low. Revolving funds are send by Ministry of Water and Environment for extension of pipes and these funds are refunded after recovering. Water user committees contribute co-funding of 200,000 to the district. The co-funding is used for development purposes. The fund is used for repair of boreholes which can’t be done by the committee. For major repairs, each household contributes 5000/= and for minor services they contribute 2000/=. They repair the bore hole 3 times a year. They spend about 900,000/= per repair”.*

On the question of whether there are variations and additional works for water and sanitation projects, the respondent’s responses indicated that 22 respondents representing 19% strongly agreed, 67 respondents representing 57.8% agreed, 12 respondents representing 10.3% preferred to be neutral, 13 respondents representing 11.2% disagreed and 2 respondents representing 1.7% strongly disagreed. The mean = 3.3793 on the “five-point Likert scale” indicates that generally the respondents had mixed opinion on whether there are variations and additional works for water and sanitation projects.

*A respondent interviewed noted; “late release of funds by Ministry of finance, planning and economic development affects timely delivery, heavy rains, delay in approval of new site shift due to failure to get water in a particular village, getting consent of land owner/land lord for drilling in a particular land, breakdown of specialized equipment and spares are not readily available, capital required for boreholes is 100% which is difficult for contractors to get at once and deliverance is 100% for boreholes”.*

On the question of whether the entity sometimes reviews designs and specifications after contract signing, the respondent’s responses indicated that “22 respondents representing 19% strongly agreed, 60 respondents representing 51.7% agreed, 16 respondents representing 13.8% preferred to be neutral, 16 respondents representing 13.8% disagreed and 2 respondents representing 1.7% strongly disagreed.” The mean = 3.7241 on the “five-point Likert scale” indicates that generally the respondents agreed that the entity sometimes reviews designs and specifications after contract signing.

On the question of whether water quantities available to households from the facilities meets the national standards, the respondent’s responses indicated that 25 respondents representing 21.6% strongly agreed, 48 respondents representing 41.4% agreed, 25 respondents representing 21.6% preferred to be neutral, 15 respondents representing 12.9% disagreed and 3 respondents representing 2.6% strongly disagreed. The mean = 3.6638 on the “five-point Likert scale” indicates that generally the respondents agreed that the water quantities available to households from the facilities meets the national standards.

*Another respondent interviewed stressed;*

*“sometimes you take long to get the water because the level of water has gone down. During rainy season the field of water is very good but in dry season the water quantity pumped is very low. Prolong drought causes low level of water. Some wells are seasonal while others are constant. Good water facilities give a good yield, climatic changes affect water table and makes it to go down especially after 2-3 years. Ideally water pumped should be minimum 5000 litres per hour. If the yield is below 5000 litres/hour, there would be jam at the pump. Generally the quantity of water is sufficient to sustain population increase”.*

On the question of whether the water and sanitation coverage in the district is according to set target, the respondent’s responses indicated that “10 respondents representing 8.6% strongly agreed, 54 respondents representing 46.4% agreed, 22 respondents representing 19% preferred to be neutral and 30 respondents representing 25.9% disagreed.” The mean = 3.6466 on the “five-point Likert scale” indicates that generally the respondents agreed that the water and sanitation coverage in the district is according to set target.

*A respondent further noted; “the entity has managed to achieve 48km coverage and 39 institutions. The management connects water within 7 days but the problem is lack of constant electricity to run the production wells”.*

On the question of whether the water facilities constructed give high yield throughout the year, the respondent’s responses indicated that 14 respondents representing 12.1% strongly agreed, 63 respondents representing 54.3% agreed, 25 respondents representing 21.6% preferred to be neutral, 12 respondents representing 10.3% disagreed and 2 respondents representing 1.7% strongly disagreed. The mean = 3.6466 on the “five-point Likert scale” indicates that generally the respondents agreed that the water facilities constructed give high yield throughout the year.

*A respondent interviewed had this to note;*

*“Where the pressure is high, it takes less than a minute for 20 litres of jerrican to get full. During dry season, the line is always long at water point yet the amount of water required by households is always a lot. During rainy season, rain harvest supplements”.*

On the question of whether the entity increases water quantities to meet the demands of growing population, the respondent’s responses indicated that 28 respondents representing 24.1% strongly agreed, 67 respondents representing 57.8% agreed, 10 respondents representing 8.6% preferred to be neutral, 9 respondents representing 7.8% disagreed and 2 respondents representing 1.7% strongly disagreed. The mean = 3.9483 on the five-point Likert scale indicates that generally the respondents agreed that the entity increases water quantities to meet the demands of growing population.

**CHAPTER FIVE**

**SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS**

**5.1 Introduction**

This Chapter focuses on the summary of findings, discussion of the findings, conclusions, recommendations and areas for further research.

**5.2 Summary of Major Findings**

This sub-section presents the major findings of the study according to the objectives of the study

**5.2.1 Solicitation documentation and service delivery in WSDF-North**

Pearson Correlation Coefficient revealed that correlation coefficient was 0.592(\*\*) p=0.000<0.01 its significance level 0.000. According to the results obtained there is a substantial positive relationship between solicitation documentation and service delivery in WSDF-North. The relationship between solicitation documentation and service delivery in WSDF-North is statistically significant. An improvement on solicitation documentation will lead to an improvement in service delivery in WSDF-North.

**5.2.2 Bid evaluation and service delivery in WSDF-North**

Pearson Correlation Coefficient revealed that correlation coefficient was 0.799(\*\*) p = 0.000 < 0.01 its significance level 0.000. According to the results attained there is a substantial positive relationship between bid evaluation and service delivery in WSDF-North. The relationship between bid evaluation and service delivery in WSDF-North is statistically significant. An improvement on bid evaluation will lead to an improvement in service delivery in WSDF-North

**5.2.3 Due diligence and service delivery in WSDF-North**

Pearson Correlation Coefficient revealed that correlation coefficient was 0.912(\*\*) p = 0.000 < 0.01 its significance level 0.000. Therefore, “according to the results obtained there is a substantial positive relationship between due diligence and service delivery in WSDF-North.” The relationship between due diligence and service delivery in WSDF-North is statistically significant. An improvement on due diligence will lead to an improvement in service delivery in WSDF-North.

**5.3 Discussion of Findings**

This subsection discusses the findings according to the respective research objectives

**5.3.1 Solicitation documentation and service delivery in WSDF-North**

Findings “revealed that there is a significant positive relationship between solicitation documentation and service delivery in WSDF-North”. The correlation coefficient was 0.592(\*\*) p = 0.000 < 0.01, its significance level 0.000.  A study by Patel, (2016)., revealed that “there was a positive correlation between Solicitation documentation and service delivery. Specifications are the important part of contract, has legal value and one can consult the court in case of dispute”. Jalal, (2014).,  noted that “ cost of work depends on the specifications.”   Specification highlight the necessary information which cannot be obtained from drawing to show the strength of construction material, ratio of concrete or mortar ingredients, type of materials, wood, glass, color of construction material, cost of material, procedure of construction works. PPDA Regulation (2014. 2 -3)., provides for “ a choice of procurement method determined by estimated value of the requirement; the circumstances relating to the requirement and the type of procurement.” According to Kog &Yaman (2014)., Picking up an inappropriate contractor would certainly lead to cost overturns, delays and substandard work hence negatively affecting service delivery. The only way to avoid this is to make sure that the contractor is able to execute the project and comply with contract specifications which indicate client’s needs. Huang (2011) reported that to be responsive, a bidder must conform to all the requirements of the instruction to bid. To be responsive a contractor has to conform to all the requests of the instruction to contractor; for instance, the forms have to be completed properly and the bidder may not place condition or restriction on his willingness to be awarded a contract. Huang, (2011)., confirmed that “responsibility can be attributed according to the contractor's track record and compliance with other mandatory/desirable requirements such as quality system, registration with societies/organisations, safety policy, conformance with bylaws, standards and regulations, and experience in/ attitude to partnering.” The responsibility of the bidders can thus be evaluated on the basis of past performance records and reports.

Huang, (2011)., pointed that “ the competency of the bidders is their capability to undertake contracts of the type usually awarded by the given entity (or a specific contract) with respect to their resources and capacities such as financial capacity, technical capacity, plant and equipment, human resources, organisational and management capabilities.” The competency of the bidders can be evaluated on the basis of available resources, track record, and current workload.

**5.3.2 Bid evaluation and service delivery in WSDF-North**

Findings revealed that there is a significant positive relationship between bid evaluation and service delivery in WSDF-North. r=0.799(\*\*) and p=0.000 <0.01. Merna & Smith (1990)., observed that “through competitive tendering, contracts are typically awarded to the contractors with the lowest price.” Lingard *et al* ,(1998)., stressed that “competitive tendering tends to increase contracting uncertainty due to errors or the deliberate submission of an unrealistically low bid.”

Lemke, (2003)., argues that “competition in public procurement helps to improve efficiency and effectiveness.” According to CIPS, (2005)., “the principles of a free market economy and open competition and transparency”. In Uganda the PPDA Act, (2003)., provided a basis for cost effective procurement, quality and timeliness of procured services leading to improved flexibility of service delivery. Cave, (2003)., stressed that “healthy competition is the life blood of commerce as it ensures efficiency, fairness, innovation and drive down prices/cost”.

PPDA Regulations 2014 (15)., provide that “the quotations method is by selection of bidders using a shortlist. The procuring entity specifies in solicitation documentation document application of reservation schemes to promote local content in public procurement, PPDA Act 2003 (97)”. This helps to protect local contractors from unfair competition against international bidders.

PPDA (2003), refers to evaluation of bids as “an independent assessment of compliance with; the statement of requirements, ability to perform the proposed contract.” It further stated that “bid evaluation is examination, comparison and recommendation of contract award”. Burt et al, (2010), argues that “the type of evaluation required to determine contractor capability varies with the nature, criticality, complexity and value of procurement, and evaluation various with sourcing team’s knowledge of the firms being considered”.  The steps for complex, high valued and critical project can include; surveys which help to provide sufficient knowledge about the contractor, technical and financial analysis of the contractor help to minimize project failures by the main contractors.

Vagari *et al.* (2017) stressed that “bid evaluation criteria is used to identify which bid offers the most economically advantageous proposal therefore criteria must be specified in the tender document for buying decision and the tender evaluation criteria requirement is defined before issuing the bid document to interested and eligible bidders by the procuring and disposal entity”. The common criteria for procurement activities include; quality requirements, functionality ability, continued technical support, ability to complete works in time, compliance with legal requirements and acceptance of proposed terms and conditions of the contract (Vagari *et al*, 2017)

 According to Herbsman & Ellis (1992)., “the major criteria of cost, time, and quality as measured by the bid amount, time of execution, and quality of previous work respectively are used in bid evaluation.” Bochenek (2014)., noted that “poor workmanship, non-completion of a project within a stipulated duration, or a decision for a contractor walking off-site, may all be as a result of the incorrect evaluation of tender and contract award.”

**5.3.3 Due diligence and service delivery in WSDF-North**

Findings revealed that there is a significant positive relationship between due diligence and service delivery in WSDF-North, r =0.912 and p = 0.000 <0.01, its significance level 0.001. According to CIPS (2012), due diligence tests and verifies the understanding of the contract or the deal to be entered into. The testing activities may include verification of; financial information, legal documents, staff information, deliverables, previous contracts, assets, properties, human rights.

Designing Wiki (2016)., argues that “the financial failure of a contractor can be catastrophic to a [project](https://www.designingbuildings.co.uk/wiki/Project).” Due diligence involves a very detailed value assessment, which takes place before signing a memorandum of understanding and includes both management as well as operations side of risks (Perry & Herd, 2004).

Alexander (2016**).,** noted that “due diligence in procurement is basically mitigating, managing risks in supply chain.” “It is the process of independently verifying a supplier’s capability to deliver fully against the contract. It is generally done at the stage of final evaluation/negotiation.” According to OECD Integrity Principles (2009)., “ procurement officials should be protected from undue influence such as political interference and internal pressure.”

**5.4 Conclusions**

Following from the discussion in the previous section, presented in this section are the conclusions under each study objective.

**5.4.1** **Solicitation documentation and service delivery in WSDF-North**

There is a strong positive relationship between solicitation documentation and service delivery in WSDF-North. This therefore means that for the entity to achieve effectiveness and efficiency in service delivery, emphasis should be put on solicitation documentation. The solicitation documentation makes certain that contractors who completed project in time can apply for such a tendering process. It also gives a chance to the client to assess potential bidders and his potential thoroughly before recruiting him for the job, as well as to achieve the optimum result in cost, time and quality (Kog & Yaman, 2014). As Morote & Vila ( 2012), asserted solicitation documentation help to “ reduce and eliminate incompetent, unsuccessful contractors from the bidding process.” Solicitation documentation sets terms and conditions which eliminates unqualified contractors from the bidding process and can assist the private and public client in attaining successful and efficient use of their money by guaranteeing that it is competent contractors who will execute the project (Huang, 2011). In addition, because of the efficiency, capability and skill of the contractor completion of work within the specified cost and time is more probable. Solicitation documentation reduces the opportunity of contractor default in bidding and restricts the number of eligible contractors involved. Hence, it is highly important to avoid or reduce risks of contractor failure, improve employer’s satisfaction, and optimize contractor selection by attaining a better balance between price and service delivery, (Darvish *et al,* 2009).

**5.4.2 Bid evaluation and service delivery in WSDF-North**

There is a strong positive relationship between bid evaluation and service delivery in WSDF-North. Bid evaluation is a decision making process that takes place within the overall procurement process. This is a process of assessment that evaluates a contractor's capability to complete projects effectively and might guarantee meeting project aims (Attar *et al*., 2013). The Multi-Attribute Utility Theory has been considered to be one of the most significant methods in multiple criteria decision-making for real and complex problems like bid evaluation (Sonmez,2006). In addition, it is particularly helpful as it permits the consideration of both qualitative and quantitative criteria and can also take into consideration numerous stake-holders. Bid evaluation is ranked as one of the most vital parts in the contractor selection process. Much accurate and sensible information should be obtained for selection of the appropriate contractor: Entities should have enough information about bidders’ past experience, workload, financial stability, technical ability, health and safety, quality include quality control, quality policy and quality assurance also resources include equipment and number of staff. Accordingly, a contractor, quoting a very low bid price and eventually winning the bid, could find the quoted amount totally untenable. Such a contractor usually provides a quality of work which usually leads to serious time and cost overruns, quality problems and increased risk to the project. The selection process, consequently should differentiate a more technically superior contractor from other marginally qualified ones.

**5.4.3 Due diligence and service delivery in WSDF-North**

The study revealed due diligence is the most important factor for contractor selection. Due diligence establishes facts about similar work done satisfactorily by a contractor in the past resulting in a higher or lower degree of confidence in the possible contractors regarding the quality, time and cost control requirements (Morote & Vila, 2012). The contractor’s past performance record is a key indicator for predicting future performance as suggested by Mamavi & Nagati (2015)., in studying the impact of performance history on supplier selection (Mamavi *et al*., 2015)., in addition to the awarding of future contracts. Due diligence must be conducted on the economic, management methodologies, and the contractual system that are in current use by the contractors. The contractor selection procedure needs to be improved for the selection of the contractor and much focus has to be given to establish management capability of the contractor through due diligence.

**5.5 Recommendations**

Basing on the study conclusions, several recommendations were made.

**5.5.1 Solicitation documentation and service delivery in WSDF-North**

The study found that most common procurement method used by the entities is the traditional method. To achieve service delivery, proper procurement systems, contractual regulations of the procurement system should be improved and revised to limit some of the weaknesses associated with traditional procurement systems. This can be done by simplifying codes and regulations, Contract documents should be rational, staff training, computer-aided programs and information technology should be utilized in design procedures and management. There should be reduction on “ exclusive reliance on public bureaucracy for service delivery to a system that advocates for the increased use of the private sector” form of service delivery which is fast and quick to demands of the citizens.

**5.5.2 Bid evaluation and service delivery in WSDF-North**

Contractor evaluation is ranked as one of the most vital parts in the tendering process. Much accurate and sensible information should be obtained for selection of the appropriate contractor: owners must have enough information about bidders’ past experience, workload, financial stability, management and technical ability, health and safety, quality include quality control, quality policy and quality assurance also resources include equipment and number of staff etc. The study recommends capacity building training on soft skills, customer care and public relations for procurement practitioners and end users at water facility North and districts of Oyam and Dokolo. The study recommends electronic tendering as a solution to lack of ethics among the procurement practitioners and Politicians.

**5.5.3 Due diligence and service delivery in WSDF-North**

There is need to reinvent, re-engineer, revitalize the procurement system, organizational transformation, total quality management, entrepreneurial ship and public private partnerships. This will enhance efficiency, productivity, improved service delivery and accountability. The entities are advised to adopt sustainable public procurement practices which focus on social, economic and environmental aspects. The study recommends that the communities and the entities to work towards preserving water catchment areas such as wetlands, springs, rivers and forests.

**5.6 Limitations of the study**

The limited time factor made it impossible for the researcher to carry out the study beyond study scope in terms of time, geography and subject.” Therefore, the future studies should include the “time series collection of data on the perception of service delivery.” The research study took long to be conducted due to interview delays. This was due to the fact that some respondents were not in office at the time of data collection. There was also a problem of taking long to appear for interviews due to interruptions arising from the frequent meetings, ongoing meetings and duty delegation. Therefore, collecting data from them through the questionnaires proved to be a big challenge.

* 1. **Areas for Further Research**

This research investigated the relationship between Contractor selection process and service delivery in water and sanitation development facility in northern Uganda. Given the time factor, it was not also possible to investigate the study variables beyond the study scope. Therefore further research should be conducted on the electronic procurement and service delivery in Uganda. An analytical and detailed study is required to determine the actual causes for the failures of many procurements in Uganda, despite the legal, regulatory and policy reforms that are being undertaken in public sector procurement management.

A case study to learn more issues linking success factors that may affect contractor selection might need to be used in further research.; Further investigation may be done as a contrast between two countries for example, one of the developed countries and Uganda to compare the contractor selection process; Further research in procurement system and contract strategies in Ugandan public projects is required to establish a line of action in ensuring these policies are carry out correctly and ideal outcomes are achieved to satisfy public requirements.

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# APPENDICES

# APPENDIX 1: QUESTIONNAIRE FOR THE RESPONDENTS

Dear respondent,

My name is **Aluma Amos Jabo,** a student of Masters in Public Procurement (MPP) of Uganda Management Institute. In partial fulfillment of the requirements for the award of this degree, I am required to conduct a research in an area of my interest and my topic of study is; **Contractor selection process and service delivery in Water and Sanitation Development Facility-North*.***

You have been selected to participate in this study and the information you give will be used strictly for academic purposes only. The information got from you will be kept confidential and you are requested not to write your name on this questionnaire.

Your participation in this study is entirely voluntary and consent to participate is implied by your decision to complete this questionnaire.

I will greatly appreciate your assistance in this exercise.

Thank you for your cooperation.

**SECTION A**:

**PART 1: BACKGROUND INFORMATION OF THE RESPONDENT.**

Please tick in the column below what applies to you.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Description** | **1** | **2** | **3** | **4** | **5** |
| **Age bracket in years** | 10 - 19 | 20-29 | 30-39 | 40-49 | Above 50 |
| **Sex** | Male | Female |
| **Marital status** | Married | Single | Widowed | Divorced |
| **Level of Education** | Masters | Bachelors | Diploma | Certificate | Others (Specify) |
| **Years of experience** | > 5years | 6-10 years | 11-15 years | Above 15 years |

**SECTION A**

**In this section, use the scales provided to tick a number that best describes your opinion.**

1**. Strong Disagree (SD),** 2.**Disagree (D)**, 3. **Neutral (N),** 4. **Agree (A)**, 5. **Strongly Agree (SA)**

|  |
| --- |
| **Contractors Selection Process** |
| No  | **Solicitation documentation** | SD | D | N | A | SA |
|  | **Specifications** |  |  |  |  |  |
| 1 | Technical specifications, drawings and bills of quantities are the important part of contract, have legal value , short and complete |  |  |  |  |  |
| 2 | Solicitation documentations issued by the entity to potential providers defines procurement objectives, scope of works, qualification, capacity and experience of potential providers  |  |  |  |  |  |
| 3 | Water and sanitation projects are complex and complicated to design drawings, accurate bills of quantities, and technical specifications  |  |  |  |  |  |
| 4 | The entity employs specialists to design technical specifications, drawings and bills of quantities for complex work projects  |  |  |  |  |  |
|  | **Methods** |  |  |  |  |  |
| 5 | The entity adheres to competitive procurement methods to improve efficiency and effectiveness in a free market economy to achieve cost effective, quality and timely service delivery. |  |  |  |  |  |
| 6 | The preparation of solicitation documentation starts with procurement initiation by the end user with clear statement of requirements, bills of quantities, designs and technical specifications |  |  |  |  |  |
| 7 | The open competitive tendering increases uncertainty, long bidding period and deliberate submission of an unrealistically low bid by bidders |  |  |  |  |  |
| 8 | The tendering process is based on principles of competition, fairness and accessibility , transparency , openness and probity  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No  | **Bid evaluation**  | SD | D | N | A | SA |
|  | **Evaluation criteria** |  |  |  |  |  |
| 9 | Evaluation criteria is used to identify most economically advantageous proposal or tender |  |  |  |  |  |
| 10 | The entity considers cost/price, delivery schedule, quality and good workmanship as major criteria during bid evaluation |  |  |  |  |  |
| 11 | The contractors financial viability, experience, qualification of key personnel, financial guarantee and capital expenditure are key in water and sanitation projects  |  |  |  |  |  |
| 12 | The comparative bid evaluation helps the entity to identify opportunistic behavior of bidders before entering into a contract |  |  |  |  |  |
|  |  **Evaluation committee** |  |  |  |  |  |
| 13 | The members of evaluation have appropriate level of experience depending on value and complexity of the procurement transaction |  |  |  |  |  |
| 14 | The evaluation committee sometimes amend evaluation criteria during bid evaluation exercise |  |  |  |  |  |
| 15 | The entity considers bid evaluation as critical stage of procurement process |  |  |  |  |  |
| 16 | Evaluation committee does thorough scrutiny of documents submitted by contractors/bidders before recommendation for award of contract |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No  | **Due Diligence** | SD | D | N | A | SA |
|  | **Risk mitigation** |  |  |  |  |  |
| 17 | The entity conducts due diligence to minimize risks associated with non-performance of bidder  |  |  |  |  |  |
| 18 | Before award of contract the entity verifies financial & personnel information, legal documents, previous performance, assets and liabilities of the bidders  |  |  |  |  |  |
| 19 | The procurement officials are protected from undue influence from internal and external interference and influence during contractor selection process  |  |  |  |  |  |
| 20 | The entity has ever recommended bidders for suspension to authority for breach of code of ethics in procurement process  |  |  |  |  |  |
| 21 | The entity sometimes detects collusion or bid rigging or coalitions to win contracts  |  |  |  |  |  |
|  | **Due diligence process** |  |  |  |  |  |
| 22 | The entity follows process of due diligence in aspects of;- qualification, financial statements, Assets, past performance, technical capability, human resources, legal liabilities, tax obligations, and socio-economic factors of a bidder for water and sanitation projects |  |  |  |  |  |
| 23 | The entity conducts due diligence before entering into contractual arrangement  |  |  |  |  |  |
| 24 | The entity verifies the human right and gender issues on a contractor/bidder  |  |  |  |  |  |
| 25 | The entity considers environmental and social considerations of a contractor in construction projects  |  |  |  |  |  |

**SECTION B**

1**. Strong Disagree (SD),** 2.**Disagree (D)**, 3.**Neutral (N),** 4. **Agree (A)**, 5. **Strongly Agree (SA)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No  | **Service Delivery** | SD | D | N | A | SA |
|  | **Quality**  |  |  |  |  |  |
| 26 | The functionality of water and sanitation facilities in villages and pre-urban areas is satisfactory |  |  |  |  |  |
| 27 | The quality of the works are clearly specified in solicitation documentation document and contractors do not deviate from quality set standards  |  |  |  |  |  |
| 28 | The water sources in villages and pre-urban arrears are never contaminated |  |  |  |  |  |
| 29 | The stakeholders supervise and monitor water and sanitation sites regularly  |  |  |  |  |  |
|  | **Time** |  |  |  |  |  |
| 30 | The entity pays contractors for completed works in time |  |  |  |  |  |
| 31 | The contractors complete works in required time schedule |  |  |  |  |  |
| 32 | The contractors sometimes request for extension of contract period  |  |  |  |  |  |
| 33 | The entity conducts timely tendering process for water and sanitation projects |  |  |  |  |  |
|  | **Cost**  |  |  |  |  |  |
| 34 | Cost savings have been achieved through contractor selection process |  |  |  |  |  |
| 35 | The budget for water and sanitation matches ever increasing population in villages and pre-urban areas |  |  |  |  |  |
| 36 | There are variations and additional works for water and sanitation projects  |  |  |  |  |  |
| 37 | The entity sometimes reviews designs and specifications after contract signing  |  |  |  |  |  |
|  | **Quantity**  |  |  |  |  |  |
| 38 | Water quantities available to households from the facilities meets the national standards |  |  |  |  |  |
| 39 | The water and sanitation coverage in the district is according to set target |  |  |  |  |  |
| 40 | The water facilities constructed give high yield throughout the year  |  |  |  |  |  |
| 41 | The entity increases water quantities to meet the demands of growing population |  |  |  |  |  |

#

# APPENDIX II: INTERVIEW GUIDE

 **Contractors Selection Process**

|  |  |
| --- | --- |
| No  | **Solicitation documentation** |
|  | **Specifications** |
| 1 | In you view, what are the most important elements of water and sanitation contract?  |
| 2 | Does the entity employ specialists to design technical specifications, drawings and bills of quantities for complex water and sanitation projects? |
|  | **Methods** |
| 3 | What procurement methods does the entity use to achieve efficiency and effectiveness in a free market economy? |
| 4 | What measures has the entity put in place to ensure compliance with procurement standards and ethical principles?  |

|  |  |
| --- | --- |
| No  | **Bid evaluation**  |
|  | **Evaluation criteria** |
| 5 | What evaluation criteria does your entity use to select the best contractor for water and sanitation projects? |
| 6 | How does your entity guard against opportunistic behavior of bidders before entering into a contract? |
|  |  **Evaluation committee** |
| 7 | What criteria does your entity use to select evaluation committee members?  |
| 8 | Does your entity consider bid evaluation a critical stage of procurement process and why? |

|  |  |
| --- | --- |
| No  | **Due Diligence** |
|  | **Risk mitigation** |
| 9 | How does your entity minimize risks associated with non-performance of the contractors for water and sanitation projects? |
| 10 | What strategies has the entity put in place to safeguard procurement officials from internal and external interferences during contractor selection process? |
|  | **Due diligence process** |
| 11 | What are the key issues your entity follows in conducting due diligence of selected contractors for water and sanitation projects?  |
| 12 | In your opinion, why is it important for your entity to consider environmental and social issues in selecting contractors for water and sanitation projects? |

|  |  |
| --- | --- |
| No  | **Service Delivery** |
|  | **Quality**  |
| 13 | What measures has your entity put in place to ensure quality in water and sanitation projects?  |
|  | **Time** |
| 14 | What has your entity done to ensure that water and sanitation projects are delivered on time?  |
|  | **Cost**  |
| 15 | Explain how your entity has ensured cost savings during implementation of water and sanitation projects? |
|  | **Quantity**  |
| 16 | What has your entity done to ensure that water quantities are sufficient to meet the demands of growing population? |

##

## APPENDIX III:

## Table for determining sample size from a given population

| ***N*** | ***S*** | ***N*** | ***S*** | ***N*** | ***S*** |
| --- | --- | --- | --- | --- | --- |
| 10 | 10 | 220 | 140 | 1200 | 291 |
| 15 | 14 | 230 | 144 | 1300 | 297 |
| 20 | 19 | 240 | 148 | 1400 | 302 |
| 25 | 24 | 250 | 152 | 1500 | 306 |
| 30 | 28 | 260 | 155 | 1600 | 310 |
| 35 | 32 | 270 | 159 | 1700 | 313 |
| 40 | 36 | 280 | 162 | 1800 | 317 |
| 45 | 40 | 290 | 165 | 1900 | 320 |
| 50 | 44 | 300 | 169 | 2000 | 322 |
| 55 | 48 | 320 | 175 | 2200 | 327 |
| 60 | 52 | 340 | 181 | 2400 | 331 |
| 65 | 56 | 360 | 186 | 2600 | 335 |
| 70 | 59 | 380 | 191 | 2800 | 338 |
| 75 | 63 | 400 | 196 | 3000 | 341 |
| 80 | 66 | 420 | 201 | 3500 | 346 |
| 85 | 70 | 440 | 205 | 4000 | 351 |
| 90 | 73 | 460 | 210 | 4500 | 354 |
| 95 | 76 | 480 | 214 | 5000 | 357 |
| 100 | 80 | 500 | 217 | 6000 | 361 |
| 110 | 86 | 550 | 226 | 7000 | 364 |
| 120 | 92 | 600 | 234 | 8000 | 367 |
| 130 | 97 | 650 | 242 | 9000 | 368 |
| 140 | 103 | 700 | 248 | 10000 | 370 |
| 150 | 108 | 750 | 254 | 15000 | 375 |
| 160 | 113 | 800 | 260 | 20000 | 377 |
| 170 | 118 | 850 | 265 | 30000 | 379 |
| 180 | 123 | 900 | 269 | 40000 | 380 |
| 190 | 127 | 950 | 274 | 50000 | 381 |
|  200 | 132 | 1000 | 278 | 75000 | 382 |
|  210 | 136 | 1100 | 285 | 1000000 | 384 |

***Source:*** *Krejcie& Morgan (1970, as cited by Amin, 2005)*

Note.—*N* is population size.

*S* is sample size.

# APPENDIX V: Introductory Letter



**Your Ref:**

**Our Ref: G/35** 7th December, 2018

**TO WHOM IT MAY CONCERN**

**MASTERS IN PUBLIC PROCUREMENT DEGREE**

**Mr. Amos Aluma Jabo is** a student of the masters in Public Procurement of Uganda Management Institute 4th intake 2016/2017, Reg. Number 16/MPP/00/KLA/WKD/012.

The purpose of this letter is to formally request you to allow this participant to access any information in your custody/organisation, which is relevant to her research.

Her research Topic is: ***‘’Contractor Selection Process and Service Delivery in Water and Sanitation Development Facility in Northern Uganda’’.***

**Yours sincerely,**



Oluka Pross Nagitta

**HEAD, DEPARTMENT ECONOMICS AND MANAGERIAL SCIENCE**

# Appendix VI: Anti-plagiarism report